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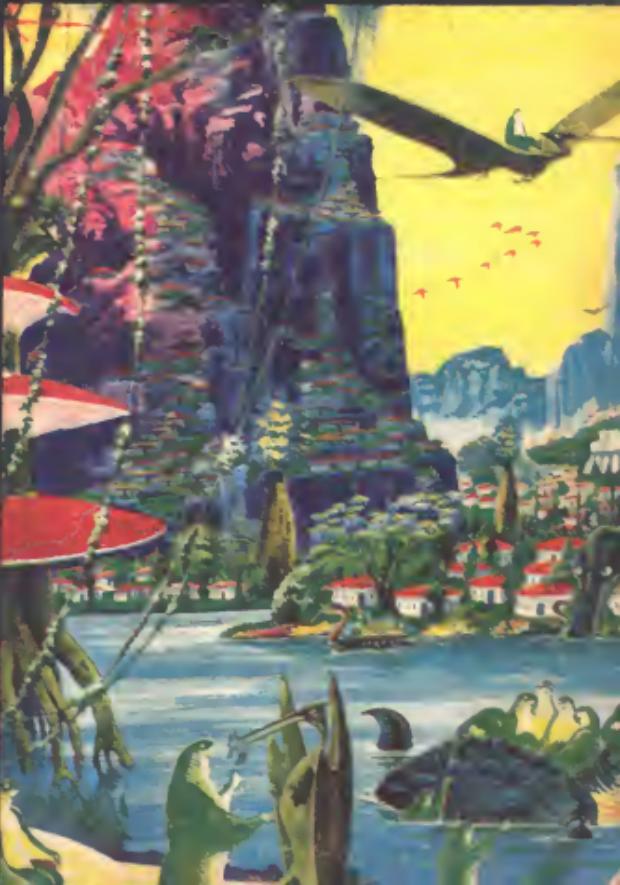
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FANTASTIC

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THE LONGEST VOYAGE

RICHARD C. MEREDITH

Illustrated by GREY MORROW

Newcomer Richard C. Meredith—author of such promising first stories as "To the War Is Gone" and "The Fifth Columbiad"—here hits his stride with a gripping account of the first expedition to Jupiter—and the disaster which leaves spaceman Scotty Sayers alone as no man has ever been before—with the grand daddy of all the planets waiting to pull him down into its methane-ammonia embrace!

This journey has been no brief Moon jump, no six-month trip between Earth and the Mars colony. This has been the longest voyage without landfall that has ever been attempted by a crew of human beings.

Nine Planets, Alan E. Nourse

Sayers carefully worked his way out of the air lock, unsuccessfully trying to avoid bumping his left arm against the rim of the lock. His shoulder brushed against an outside sealing flange; bright streamers of pain tore their way down his arm, searing into the numbness of his fingers. Instinctively he recoiled, throwing himself back into the lock, his helmet clanging loudly against metal.

Cursing bitterly and poetically, he threw his sound arm back across the lock's lip, and pulled himself out slowly. Once clear of the lock, he clipped a line to a small ring set into the ship's hull, and let out a long sigh of relief. He had made it out. Maybe he could even make it back inside, if he decided it was worth the effort.

Looking at the sky, he saw the squashed sphere of grand daddy Jupiter hanging against a backdrop of stars, decorated with gaudy stripes like a beach ball that someone had thrown outward with such force that it had gone into solar orbit. It was something more than eleven, almost twelve degrees in angular diameter, nearly twenty-four times the

size of the Moon as seen from Earth. Despite its size, it did not look big and distant, but small and close, as if Sayers could actually reach out and touch it.

You're not as innocent as you look, Sayers said to himself, feeling a sensation that would have been hatred had it been directed at another human being rather than the huge, impersonal planet. You God damned methane and ammonia snowball.

Half the planet was in shadow, its silhouette a darkness against the stars. The bright side was illuminated by a tiny yellow sun, a fourth the size of that same sun on Earth. Sayers remembered someone having told him during his training that Jupiter received less than four one hundredths the amount of light of Earth, and right then he did not doubt it. It looked cold; it was cold. That was the very essence of this end of the universe—cold!

After a while he pulled his eyes away from the shadowed beach ball, and began working back toward the rear of the ship, sometimes floating, sometimes pulling himself along with his hands, slowly paying out the line as he moved.

Priam was in no better shape than he had figured. The rear third of the ship was just no longer there. A flaw, a structural error, a miscalculation—and liquid oxygen had somehow made its way into one of the cesium tanks, and everything had gone off with a hell of a bang. It was that simple, and that deadly.



He was surprised at the number of metallic balloons that remained. He wondered how any of the metalized plastic spheres could have escaped being punctured by fragments during the explosions, yet about half of them were intact.

Sayers looked at the torn hulk of the *Priam* for a long while, thinking how stupid any optimism had been. *Priam* was dead and powerless, a hulk without an engine, a derelict little chunk of metal that had become another satellite of Jupiter, and would probably remain that way for the next few million years, if it were not captured by Europa, whose orbit it crossed.

For a few moments Sayers had an urge to reach up and unsnap the clamps that held his helmet on, to let the air rush out and end this sorry mess once and for all, to bring to as clean a conclusion as he could the ill-fated first expedition to Jupiter.

Mixed with his desire for self destruction were images of a green and blue world over four hundred million miles distant, a world of warmth and sunlight and air, a world where there were people and laughter and no fear of instant death, a dream world so distant in space, so remote in time. And there were memories of fevered dreams of a squashed beach ball with a grinning face hidden in the shadows, and long chains that stretched from it, wrapping their links around Sayers and binding him so that he could never escape.

Hours later, it seemed to him, the inside of his spacesuit filled with the moisture and odor of his own sweat, Sayers turned himself around and began crawling back toward the air lock. During that trip back, pulling himself along with his good hand, the line white and taut in the glow of the distant sun, his mind was as nearly blank as a conscious human mind can be.

He scraped his shattered arm again as he crawled back through the air lock into the ship. Pain, nausea and a dangerous grayness rose up in him, and he bit his swollen lips to keep from losing the small spark of consciousness that remained. That was all he had to which he could cling, and he was not going to allow himself to lose that.

Finally the pain subsided enough for him to slam the inner hatch of the airlock closed, dog it, and then crawl/swim through the vacuum of the ship's forward compartment to the air cycling controls. His right hand, a distant, remote extension of a body his mind happened to possess, reached out toward the controls, hit the toggle switch that started the air pumps, adjusted for air pressure then relaxed.

How much later it was when he pushed himself away from the control panel, he did not know, but it seemed to have been long enough for the air pressure to have risen to a breathable level. The same alien hand came up slowly, and clumsily undid the snaps on his helmet. The helmet

lazily floated away across the cabin, and Sayers breathed deeply.

Allowing his body to drift as it would, Sayers relaxed, trying to ignore the pain, trying to ignore everything. His eyelids floated closed with free-fall slowness, and he slept. And while he slept, he dreamed.

His name was Scott W. Sayers, Lieutenant Colonel, USAFS, assigned to NASA, where rank sometimes came fast, and death came as suddenly. A small, dark, thirtyish moon pilot with a perpetually sardonic smile, Scotty had a hankering to see the further ends of space. He volunteered for Project Troy.

Twenty-six men were selected for training for Project Troy; eighteen completed the course and went into the active phase of the project. There were three crews of them, six men for each of the three ships, and Scott Sayers was assigned to the flagship, USNASASS *Priam*. Being an electronic engineer by training, he was given the title Fleet Communications Officer, and since he had grown up on a farm, he was also horticulturist for the *Priam*, in charge of her hydroponic gardens. He was also back-up pilot for ship's captain Commander Ray Coiner.

Little, annoying things had happened even while the ships orbited Earth, but nothing major went wrong until they were 351 days out, almost half way to Jupiter. *Priam*, *Hector* and *Paris* were in a line, spaced about two miles

apart, *Priam* leading. Having just skirted a loose mass of asteroidal debris, space seemed clear enough ahead. At least radar officer Jan Whittinger saw nothing, recorded nothing on his 'scopes.

But something was there, a fragment of rock that reflected only a tiny amount of light, that made only a tiny blip on the radar screens. But it was moving!

"Maybe it was a chunk of a dwarf star like Sirius B," Ray Coiner said later, "zipping through the galaxy for a hundred million years. It had a hell of a lot of mass."

The tiny, massive, speeding meteor shot past *Priam* finally bringing a response from her instruments. Fleet Captain Coiner grabbed for his microphone to radio a warning to the ships behind.

The chance was one out of millions that it would happen, but it did: head on the meteor met the *Paris*, ripping her open, spilling dying men out into space. Six men died as metal and stone met, tore, shattered, vaporized.

Sayers was still in radio contact with Earth then. The weak, fading voice gave the two surviving ships what consolation it could, and told them to go on; two ships could still complete the mission, but for God's sake, be careful.

They were, but perhaps not careful enough.

Seven hundred and seventy-one days out of Earth, the *Priam* and the *Hector* passed the orbit

of Hades, Jupiter's outermost moon.

"We've made it," Juan Garza said quietly, jubilantly.

Ganymede, some 665,000 miles from Jupiter, was much as they had expected, a cold, lifeless, useless lump of stone. It was, at best, a place they could orbit while they ran their initial studies of Jupiter. Jan Whittinger broke out his telescopes, spectrometers, thermocouples, and a hundred other instruments, and with Sayers' inexpert help, began his preliminary studies of grand daddy Jupiter at close hand.

Seventeen days later the first of these observations had been completed, and it was *Hector's* turn to run in as close to the giant planet as practicable, and shoot her three probes down into the methane and ammonia soup that passed for Jupiter's atmosphere.

Hector fired her drives, squirted ionized cesium into space, boosted out of orbit and spiraled in toward Jupiter. Inside the orbit of Amalthea, the closest moon to Jupiter, she began having trouble. A steering jet jammed open, burning fuel at a rate that *Hector* could not afford, and sending the ship into a crazy spiral.

Jack Winters, *Hector's* captain, went outside to see what he could do about it. While he manipulated the jet's external controls, one of its bearing rings gave way. The engine began snapping wildly back and forth, throwing the ship into an even wilder plunge, and washing the instantly roasted body of Captain Win-

ters off into the darkness of space.

The crew of the *Priam* went in to help. Maybe they shouldn't, Sayers thought. They were too far away and there really wasn't anything they could do when they got there—but they *had* to try; God, those were people.

Ray Coiner gave the orders and they boosted toward Jupiter.

They were too late.

Running in as close as they dared, too far into the gravitational field of the giant planet, radar showed *Hector* breaking apart, shattering under the stress of too many forces acting in different directions, spinning down toward Jupiter's atmosphere. The ship's radio was silent and dead—the crew was probably the same.

There were tears in Ray Coiner's eyes when he finally fired the ship's lateral steering jets, turning the ship away from the grand daddy planet. Sayers felt a moistness in the corners of his own eyes, which he quickly wiped away. None of them said very much as the ship made a wide, arcing turn around Jupiter, back toward Jupiter.

The *Priam* lost altitude, too much altitude, as it made its comet-like spin around the giant planet. Coiner fired the cesium ion drive, and the ship began to pick up speed, accelerating outward against the powerful gravitational force of Jupiter. As Coiner moved the controls to maximum, G forces mounted, pressing Sayers back into his acceleration couch.

Suddenly a brilliant, flashing

red light came into being on the control panel, a light labeled "Cesium Tank No. 4." The ship and the men inside her were taking more G's than either had been designed to withstand, and some structural weakness of the ship was showing up. Something was leaking; heat was growing in the tank.

A wave of consternation went across Coiner's face. For a moment he remained motionless; then his hand, moving slowly under the tremendous gravitational force, moved toward the controls. He began cutting back the drive.

"We should never have gotten that close," he muttered.

Sayers made some quick calculations in his head as the G forces dropped. "Fuel consumption's too high, Ray," he said aloud.

"Got to cut back," Coiner said, biting off his words savagely, "Something's wrong out there. Got to have a look."

The acceleration dropped to a little less than one gravity. The *Priam* was still moving away from Jupiter, but at a slower rate, a rate that would cost them too much fuel for too little speed.

"Take over, Scotty," Coiner said suddenly, slipping out of the command pilot seat. "Juan and I'd better go out and have a look."

"Outside?" Sayers asked. "While we're accelerating?"

"We don't dare go into orbit," Coiner snapped back, "and we've got to have a look."

He did not speak again as he spun around, motioned Juan Garza to follow him, and then made his way to the air lock.

As the air lock cycled closed behind the two men, Sayers snapped the faceplate of his space helmet closed, and glanced around the now empty control room. The other three crewmen were in the aft compartment, watching their instruments, making their readings, reporting to Sayers the increasing danger.

Once outside Coiner radioed in, asking Sayers for a report. One after another warning lights were coming to life on the control boards. Hydrogen was spilling out into space, mixing with oxygen from a ruptured balloon—something like a fire was burning along the rear third of a ship, starboard side, near the cesium tanks.

"Cut the drive, Scotty!" Coiner's voice screamed suddenly. "Now! Hit the retros."

Sayer's hands fell across the controls, panic from Coiner's voice reaching him.

"Don't worry about sequence," Coiner yelled. "Just shut it off!"

And that was all Sayers remembered, Coiner's voice crying, "Just shut it off!"

The first thing Sayers remembered after the blow-up was blood, blood everywhere, on everything, a red fog that ran and blurred across the whole universe. After a long, long while he realized that it was blood inside his helmet.

There was little pain, though he knew he was hurt. The blood in

his helmet came from a big gash over his right eye, and he knew that if he did not do something about it soon, he would drown in it. His left arm felt strangely numb, and there was an odd joint where no joint should have been.

While he slowly returned to consciousness, he hung a few inches from the rear bulkhead, midway between the deck and the ceiling, in the forward compartment. There was the uncanny silence of vacuum around him, the lonely, dead silence when there is no air to carry the vibrations of sound.

Twisting just enough to reach around and check his suit radio, he spoke into the throat mike. His voice was almost a scream.

"Ray? Jan?" he waited for a moment. "Norman? Harry? Juan?" He waited again, but there was no answer. "Ray, can you hear me?" He ran down the names of the others again, but there was still silence in the headphones, except for the distant crackling of cosmic noise.

Oh, God, he said to himself as the mental numbness moved aside just enough for him to realize what had happened. Not us too?

He shoved away from the bulkhead with his right hand, careful not to let his strangely uncomfortable left arm touch anything. Through the red fog that filled his helmet he could see a frighteningly large gap in one of the side bulkheads, a gap that extended

through both the ship's hulls, leaving a clear view of space beyond, and apparently running from the rear of the ship, through the aft crew compartment and ending in the forward one. There was good reason for no air to be in the ship.

The fuel cells still functioned, at least. The forward view screens were operating, showing a vast field of stars and the huge, flattened, striped sphere of Jupiter.

Sayers hung still for a few moments, looking at the screen, peering at the grand daddy planet. It did not seem to be moving against the backdrop of stars, at least not enough to tell, and it did not appear to be swelling or shrinking. Maybe *Priam's* orbit was stable, just maybe.

Tearing his eyes away from the screen, he twisted and pushed himself toward the hatch that connected the two crew compartments, a hatch that was standing open a little way, its whole framework twisted out of shape. It was not open quite wide enough for him to get through, and it took a great deal of effort to get it wide enough with only one hand.

The aft crew compartment was a little larger and more cylindrical in shape than was the conical forward cabin, but it was in no better condition. The rent in the hull was wider, and extended the whole length of the cabin. Like the forward compartment, dozens of loose objects hung in free fall,

motionless. There were two spacesuited figures there—and neither of them moved.

"Can anyone hear me?" he said into the throat mike of his spacesuit, not wanting to look closely at the two still forms. "For God's sake, are any of you still alive?"

The radio answered with a faint crackling of stellar noise, but that was all.

Sayers felt a sudden desire to scream. It wasn't fair. Oh, Holy God, it wasn't fair!

Then some coldly rational part of his mind gave him a mental slap. Only a fool expects fairness in this universe, it said. Pull yourself together.

The red fog in his helmet was growing thicker, forming distinct blobs of blood inches from his eyes, entering his nose and mouth with each breath he took, a warm, saline moistness.

Somehow, without consciously doing it, he turned around and pulled himself back into the forward compartment. He pushed the hatch as nearly closed as he could, and wondered how much longer it would take before he really did drown in his own blood.

If I plan to go on living, he said to himself, I'm going to have to get a God damned patch on that hull.

Sensation had begun to return to his arm, a sensation that was mostly pain, a growing, swelling pain that told him that his arm was more than simply broken.

THE LONGEST VOYAGE



Fighting down the pain, he opened a locker that contained sheets of a thick, durable plastic-like material. Placing several of the sheets across the gap in the bulkhead, he bonded them to the metal with a small, soldering gun-like tool. He repeated the process with the warped hatch, covering the twisted framework with the plastic and bonding it to the bulkhead and deck. After a few checks, he decided that the seals were airtight.

As he propelled himself across the chamber toward the air cycling controls, nausea rose in his stomach, and a grayness came up into his eyes. The whole cabin seemed to expand suddenly, and grow dim as if the fuel cells were failing. He caught his slow flight across the cabin more by instinct than anything else, and fumbled for the air controls.

After his third or fourth attempt, the air pumps came to life; a little green signal light shone through his red spotted faceplate, through the numb grayness of his mind, signalling proper operation. A gauge began to show the rise in pressure. The gauge became harder to read as his eyes involuntarily went out of focus and the red blobs inside his helmet swelled. Finally he had to guess that the gauge was in the safety zone. He unsnapped the clamps in his helmet.

A cloud of red droplets came

away with the helmet, and he gasped for a breath of air that did not taste and smell of blood and sweat and death.

As quickly as he took the first breath of air, he was sick. His stomach made a wild lurch inside him, and its contents, the remains of a forgotten meal, spilled out of him into the air.

After a whil his insides settled, leaving him feeling so weak he could hardly move. A sharp, throbbing pain replaced the nausea, and there was enough blood in his vomitings to make him think that he was hurt internally, perhaps not seriously, but badly enough.

"You're in a hell of a spot, fellow," he said aloud, forcing his lips into a smile. "You sure as hell are."

Fumbling around in the cabin, he found a first aid kit. He applied a thick, white cream to the gash in his forehead, and then covered it with a bandage. Then he began working his way out of his spacesuit.

His left arm was broken, badly broken in two places. From a fracture above his elbow a sharp corner of white bone had cut outward through the skin. He felt sick again, awfully sick.

Sayers, like all the crewmen, had been given extensive training in first aid during the preparation for the flight, and even before that he had had exper-

iences where it had been necessary to take quick, and sometimes unorthodox action to save human life. But it had always been someone else who was hurt. Now it was himself on whom he had to work, and that was a different matter altogether.

He lost consciousness several times as he slowly worked the broken bones of his arm back into some semblance of their normal shape, and then splinted the arm stiffly at his side. When that was completed, he allowed himself to fall back into unconsciousness, and stayed that way for a long, long time.

For a day, maybe two—he was not sure—he did not move except to drink from the water canister of his spacesuit and to relieve himself. Otherwise he slept in a haze of pain and periodic coughing, soothed by ampules of drugs he found in the first aid kit. He had dreams, terrible dreams, but when he awoke he found that reality was just a little worse than the worst of the dreams.

Sayers did not die, though there were times when he thought he would, and even wished he would. Finally the pain began to fade, or perhaps he had just grown used to it, and he began to wonder just exactly what his situation was.

The ship's instruments told him a few things when he had the strength and the will to interpret them: the cesium tanks

had exploded. How? Why? Hydrogen and oxygen balloons had split under the acceleration of escaping from Jupiter; liquid oxygen, as well as combining with the hydrogen, had spilled back, found its way through a stress crack into the cesium; then a violent oxidation had begun, a reaction that grew, blasting open other cesium tanks, tearing open more balloons of liquid oxygen and hydrogen, creating a tremendous, flaming explosion in the airlessness of space. Now *Priam* was a wreck, without ionic jet engines, without its cesium fuel. It was that simple.

About two-thirds of the way to the rear of the ship had been the ring of metallic plastic balloons which had contained liquid oxygen, to replenish the crew's air and other ship's functions, liquid hydrogen, a coolant for the engines, and water. About half of those balloons had been ruptured and their contents strewn half way to Jupiter.

The hull was torn by a gap that extended half the length of the ship. Two of the four sections of the hydroponic gardens had been depressurized, though the other two sections were still airtight, and their contents apparently in good condition.

Radar reported that the wreck of the *Priam* was in a stable elliptical orbit around Jupiter. The kick of the explosion and her own inertia had carried the ship far be-

yond the spot where Ray Coiner had commanded that the engines be shut off. The average distance was in the neighborhood of 420,000 miles from the planet, or just a little over the distance of Europa, and one revolution around would last something like 3 days and 14 or 15 hours. Sayers would probably never see Europa, except as a bright star, since his orbit was at quite an angle to hers. It would probably take thousands or millions of years before the derelict happened to cross Europa's path when the moon was anywhere near.

Food supplies were more than ample for one person for a long time, and as long as the remaining hydroponic gardens were tended, they would continue to supply fresh food and help replenish the air. Even with half the stores of air and water gone, there was enough to last Sayers at least ten years; the water might last even longer than that since a lot of the original supply had been intended for use in operating the drive units, and they no longer existed. Highly efficient reclamation and recycling equipment could make a gallon of water do the work of several dozen before it was finally lost from the system.

Sayers could survive for a long time in orbit around Jupiter. But so what? he asked himself. No one was coming after him. It

was merely a matter of delaying the inevitable. He was like a patient with a terminal disease; the ultimate end could be put off, but not avoided, and he wondered whether putting it off was worth the trouble.

He sat looking at the banks of instruments for what seemed to be hours, and would probably have continued to stare had not the very basic sensation of hunger gotten the better of him.

His stomach had returned to enough like normal for the desire for food to have come back, and sooner or later, unless he decided to starve himself to death, he would have to get into his spacesuit, pull the seals off the connecting hatch, and go through the aft compartment into the gallery.

He delayed it as long as he could, not wanting to have to put the spacesuit back on, knowing it would be painful to his broken arm, not wanting to see the two bodies that hung silently in the rear compartment. At last he gave in, and cleaned the blood out of his helmet. Then he began to pull his spacesuit on. It was difficult, but not painful, until he began stretching the tough fabric up over his broken arm. The arm was taped to his side, and bent at the elbow so that his forearm came across his stomach. His numb left hand bending around his right side. The added girth to

his torso made a tight fit for the spacesuit, and Sayers thought he could feel the broken bone ends move as he zippered the suit shut.

Clamping his helmet tight, he went to the air cycling controls, reduced the air pressure to zero and saw the green operating light fade out, replaced by a red one. He pulled the sealing patch off the hatch, worked it as wide open as he could, and pulled himself through.

He paused for a moment, his breath coming in hot gasps, and surveyed the compartment. It had not changed. The two spacesuited figures had not moved.

Before he looked for food, he told himself, he would have to do something about them. Burial in space? He could not just slip them out of the air lock and let them float in orbit around the ship. Then he thought of the airless sections of the hydroponic gardens. Those tanks of chemicals were a poor facsimile of soil, but at least things had grown there once. Perhaps it was fitting that his friends lie there.

Despite himself he looked at the faces inside the helmets as he slowly, painfully moved them through the corridor to the hydroponic gardens. Norman Hudson was the first one—big, ugly, red faced, but with a mind . . . Dammit! he yelled to himself. Cut it out!

He placed Hudson's body inside

one of the ruptured sections of the gardens, and then went back.

Harry Isaacs had died suddenly, painlessly, and for Harry's sake, he was glad of it.

Ray and Juan had been outside, he told himself as he moved Isaacs' body in beside Hudson's. They had gotten it when the tanks exploded. Norm and Harry had been killed by the concussion that had not quite killed Sayers. But what had happened to Jan Whittinger?

Whittinger had been in the aft compartment with the other two, bent over his instruments, plotting their orbit back to Gany-mede. Maybe he had been sucked out through the gap in the hull when the cabin depressurized. Maybe he was floating out there somewhere, still alive, his radio inoperative. Maybe . . . That's enough! Sayers told himself. The gap was not large enough to pass a human being without touching the edges of the ragged metal—and it took very little imagination to visualize what would have happened to a spacesuit passing through that opening. Jan was not alive, no more than Harry and Norm. Jan was dead. They were all dead, God dammit, dead!

Sayers felt very little hunger after that.

He forced himself to go into the galley, gather up several packages of food and a canister of water, and then half-floated, half-swam

back into the forward compartment. After re-sealing the hatch, he cut the air cyller back on and removed his helmet. Somehow he opened his mouth, forced in food, and gagged it down his throat.

While he ate, some small and distant part of his mind said: No situation is ever really hopeless, not unless you're dead.

Platitudes, the surface of his mind replied angrily, that's just exactly what the hell I need, platitudes.

But he remembered an incident, fifteen or sixteen years before, when he was just a kid. They had lived on the northwest coast of Florida then, right on the Gulf of Mexico, and during the summer he spent every day on the beach.

His father had a small boat with an outboard motor that he used for fishing, and young Scott used for water skiing. He took it out in the narrow bay near his home two or three times a week, seldom going far from shore.

One day, when all his friends were otherwise occupied, Scott was out alone in the boat, feeling a little braver than usual. He drifted farther from shore than ever before, out of the bay into the unusually calm waters of the Gulf. About the time he lost sight of the land, a sudden summer storm came up, lashing him with cold rain, obscuring the afternoon sun. By the time the storm

was over, he had completely lost his orientation, and could not see the sun through the heavy clouds that remained in the sky.

He began running aimlessly, first one way, and then another, trying to catch some glimpse of the distant shore, and after a while the inevitable happened—he ran out of fuel, and still without sighting land. When darkness came, he sat in the middle of an endless ocean.

That was the longest night Scotty Sayers ever spent in his life. Death seemed to hover over him like a dark angel, beating its taloned wings in his face. He did not ever think he would see solid land again. Saying his childhood paryers, he resigned himself to whatever fate awaited lost sailors.

A few hours before dawn the overcast began to break apart, and finally, one after another, stars began to appear. At last the Big Dipper was complete and he followed its pointer star to Polaris. He knew where north was. He began rowing with the boat's single oar, rowing until his arms were so sore and stiff he did not think he could continue to move, but he did; he kept rowing.

When dawn came, the sky was clear, and on the horizon he could see white sandy beaches, and a house or two. He came ashore five miles from home. He was at home when his father's search party returned. His punishment was

swift, stern and just, but he had learned his lesson; he had learned several lessons.

That little incident, stupid and minor as it was, had taught him to never give up hope. Maybe that sounds inane and trite, he told himself, but it's true. Maybe there *are* situations you can't get out of, but you can never be sure that *this* is one of them. Keep trying—really, what have you got to lose?

He had not taken off his spacesuit while he ate, and when he had completed forcing the food down into his unwilling stomach, he slipped his helmet back on, went to the air lock, found that the outer hatch was jammed open, went back and cut off the air pumps, then wormed his way through the air lock and out into space.

The instruments had told him the condition of the ship, but he wanted to see it for himself. Maybe things were not quite as bad as they seemed.

They were.

After coming back into the ship and resting fitfully, Sayers pulled himself back out of his spacesuit, located a clipboard, pencil and paper, and began writing down his assets.

The better part of the ship was still intact, though the hull needed patching. He still had power and most of the instruments functioned. Food was not a problem;

the frozen and dehydrated supplies were meant to last for years, and the two remaining sections of the hydroponic garden supplemented that. Air, from both the oxygen given off from the gardens and that in the remaining metallic balloons, would last a decade. Water was equally well supplied. He even had several hundred gallons of liquid hydrogen, though he could not see the value of that. One good spacesuit and replacement units were in the lockers. He was amply outfitted with tools, though he did not know what he could build. He had a tremendously powerful radio, but not powerful enough to contact Earth or the Mars station.

The debit side of the list was shorter, but even at that, far too long: Ray, Juan, Norman, Harry, Jan—dead; engines—destroyed; fuel—gone. That seemed quite a sufficient list.

He took a second piece of paper and stared down at the blank, white surface for a long while. Then he wrote:

"Problem: in orbit around J.

"Solution: build up sufficient velocity to break away and fall into solar orbit like a comet.

"How achieve: ???"

It's pretty simple when you write it down, he thought. But what in God's name do I do for an engine and fuel?

" $2\text{H}_2 + \text{O}_2 = 2\text{H}_2\text{O}$," he wrote. "And a release of energy," he said

aloud. "But how much?" He did not remember his basic chemistry well enough to come up with any meaningful figures, but he was sure that it was not enough to do him any real good. Anyway, what would he do for a combustion chamber?

"Where does that leave you?" he asked.

He quickly began sketching an egg-shaped chamber on the bottom of the paper. Punch a hole in one end, fit a cone-shaped nozzle, and I've got an engine, he thought. I could build that from the materials I've got.

But that thought brought him back to the original problem—fuel. What did he have to burn besides oxygen and hydrogen? "Nothing, not a God damned thing!"

His drawing made him think of something he had seen in a history book, a crude steam engine built by an ancient Greek named Hero, or something like that. It had been a hollow sphere, mounted on pivots, with an "L" shaped nozzle on either side, facing in opposite directions. When the chamber had water placed in it, heated and began to build up steam pressure, it rotated as the vapor jetted out of the nozzles. Do away with one nozzle, he thought, straighten out the other and flare it a little, and I've got a jet engine, a steam jet.

Sayers smiled to himself. I've got water, more than I'll ever need, and enough hydrogen and oxygen to make God-only-knows how much more. So I've got fuel, after a fashion.

"Where does that get you, fellow?" he asked himself. "How do you go about heating the water. Got that much fuel in your lighter?"

He thought of running wires from the ship's electrical system out to the rear of the ship where he would construct his "steam jet." But how much electrical power have I got available? And how much would it take to give me the kind of heat I'd need? Not enough, he answered himself, not nearly enough.

"Heat?" he said aloud, suddenly grabbing the paper from the clipboard and wadding it in his hand. "Where the hell do I get heat out here?"

He looked up at one of the view screens over the forward control panel. In the lower right hand corner was a tiny yellow disk, a fourth the size of Earth's sun, 484,000,000 miles away.

Sitting right in the middle of Hell's ninth ring, he thought, out here where methane and ammonia are normally liquid, and I need heat.

"You've got talent, Scotty," he said aloud, "real talent, boy."

Somehow that seemed funny to him, too funny. A strange, savage

laughter came up in his throat, a laughter he suddenly found he could not control.

"God damn you," he yelled between bursts of laughter, shaking his fist at the cold, remote disk of the sun. "God damn you. God damn you!"

Suddenly the laughter died in his throat, and for a few moments Sayers hung in free fall before the view screen, peering at the tiny yellow disk of Sol.

"Maybe you've got some use after all," he said aloud, very, very slowly.

Weeks, months, perhaps even years later—Sayers did not really know—he sat before the control board, watching the huge bulk of Jupiter as he swung around it, out of its shadow back into the pale light of the sitant sun.

His left hand lay strapped to the arm of his control seat, his fingers in a strange, motionless position. There was a pale waxiness to that hand and arm, a flabbiness to the flesh that the rest of his body did not share.

His face was dark and lined and thick, covered with a growth of dark beard. His NASA uniform was tattered rags, soiled and ugly. But there was a bright gleam to his eyes, and a hard smile on his lips.

"Okay," he said aloud, for he had grown quite accustomed to talking to himself, "let's see what happens."

A large, crude wheel had been built into the control panel, a wheel that was connected to a geared-down pointer and to a chain drive that went back through the cabin, through a rubber-sealed opening in the bulkhead, vanishing into the rear of the ship.

Sayers estimated the position of the sun and then began to turn the wheel slowly with his right hand, turning it until the pointer lined up with the sun. Then he waited, his eyes peering intently at a gauge that was crudely lettered "Steam Pressure."

For hours he did not move, did nothing but watch the red needle of the gauge as it slowly, terribly slowly began to climb from its zero position. But it did move, by God, it moved.

Three quarters of the way across the face of the gauge there was a red mark, and Sayers did not move until the needle crept up to that mark. Then he caught his breath. There was silence.

The sound that passed through the ship was a mere vibration, a sudden cough and a shudder that pressed Sayers back into his seat only slightly, but that was enough.

"God damn!" he yelled jubilantly. "It works. I'm going home. By God, I'm going home."

The NASA spaceship *Priam* had never been a pretty sight. It had been designed for efficiency, not

beauty—an ungainly collection of tubes and spheres, braces and supports. But now it was stranger and uglier looking than ever before, like a huge bat-winged thing spewing behind it a cloud of white vapor that vanished into space.

Two huge, parabolically curved crescents of metallic plastic, the remnants of burst balloons, sprouted from either side of the naked framework. An "L" shaped arm came out of the ship's stripped structure for each wing. The short leg of the "L" was connected to a crude chain drive which ran from the interior of the ship; the long leg was connected to the wing; and the whole affair could be rotated so that the concave portions of the crescent wings always aimed toward a large, roughly egg-shaped chamber that had been welded into the spot where the *Priam's* ion drive had once been.

The parabolic wings were not the most efficient mirrors men had ever devised, but at least they did work: gathering the faint light of the distant sun, focusing its weak rays on the metal egg, heating it and its contents until the pressure of the vaporizing water grew great enough to blow off its valves and spew a jet of steam out into space.

Sayers knew it was crude and inefficient, the whole mess, and delivered an infinitesimal fraction of the power the ship's ionic jets

would have given him. But at least it was power, and that is what he needed.

Of water he had plenty, maybe even enough to give him the boost he needed. It would take a long time, God, a hell of a long time, as the weak jet slowly increased his speed, slowly pushed him out into a widening spiral, slowly pushed him out to the point where Sol's distant gravitational field would rival, then surpass that of Jupiter, and he would begin to fall sunward, Earthward.

Maybe he would run out of water before he escaped from Jupiter's gravitational field. He did not know. But so be it. He was trying, and to die trying was a hell of a lot better than to die without giving it a chance.

Maybe I'll never get close to Earth, Sayers thought as he slowly turned the crank and kept the mirrors directed into the sun, but if I can just get within radio range, that'll be enough. Just let me get close enough.

Sayers sat back in the control chair and looked up at the huge disk of Jupiter on one of the auxiliary view screens.

"I'll beat you, God damn you," he said, "or die trying. But I think I'll beat you."

The longest voyage had begun, the long voyage back toward the raging solar furnace, and a green and blue planet called Earth.

The End

SAME AUTUMN IN A DIFFERENT PARK

PETER TATE

Illustrated by GREY MORROW

If you enjoyed his debut in our May issue—with "The Thinking Seat"—you'll get even more of a kick out of young Peter Tate's latest short—destined, we predict, to be named one of the best of the year. This time instead of future "hippies" tangling with jaded pleasure-seekers along California's Pacific Coast, he narrows his focus to sometime after a nuclear war and two children growing up in a wonderful garden declared off-limits to all adults—including their parents.

MM/DD REF SHELTER-
CHILD SNAP FOUR

DARLING DASH DAMN
THESE TELETYPE COMMA
THEY TAKE ALL THE WARMTH
OUT OF A CONVERSATION
STOP DARLING DASH I DON'T
CARE HOW STUPID IT LOOKS
IN PRINT COMMA I'M STILL
GOING TO SAY IT STOP DO
YOU THINK OUR CHILDREN
ARE REALLY RIGHT FOR THIS
SELF-SUPPORT BUSINESS
QUERY I MEAN COMMA WE'RE
NICE PEOPLE STOP WHAT
HARMFUL INFLUENCES ARE
WE GOING TO EXERT ON THEM
QUERY ENDS

DD/MD REF SHELTER-
CHILD SNAP FOUR

HONEY COMMA TRY TO AC-
CEPT VERNACULAR DASH AL-
SO FINDINGS OF COMMISSION
ON UPBRINGING RE EVILS OF
PARENT OBLIQUE CHILD IN-
TERCOURSE STOP I QUOTE
PAR ONE EIGHT (18) SUB HY-
PHEN SECTION L(L) COLON
QUOTE IT HAS BEEN NOTED
FROM DEPOSITIONS OF JUN-
IOR JUDICIARY PANEL MEM-
BERS THAT INSTANCES OF
CHILD MISDEMEANOR ARE
SEVEN TIMES BRACKET OUT
OF REPRESENTATIVE TEN
BRACKET DIRECTLY RESULT-

ANT FROM PARENTAL FAILURE COMMA ID EST COMMA PREVIOUS AND PROVEN CRIMINAL TENDENCIES OF HEREDITARY NATURE COMMA DISCERNIBLE MORAL INADEQUACIES COMMA RELUCTANCE TO ADMINISTER VITAL CHASTISEMENT SEMI HY-PHEN COLON AND TWO POINT NINE SEVEN RECURRING (2.97) TIMES TO ENVIRONMENTAL FACTORS COMMA EXEMPLI GRATIA COMMA RICH HOME COMMA POOR HOME COMMA SPOILED CHILD COMMA CROWDED OUT CHILD STOP BRACKET SEE FOOTNOTE...

FOOTNOTE STATES COLON APPARENT EXISTENCE OF TWO EXTREMES COMMON TO SAME CONDITION SHOULD NOT BE TAKEN AS CONTRADICTION STOP CONDITION ONLY SERVES ALL MORE TO ILLUSTRATE INADVISABILITY OF SUBJECTION OF MINOR TO ADULT INFLUENCE OF ANY FORM ENDS UNQUOTE HONEY COMMA NOW YOU KNOWSTOP ENDS

MM/DD REF SHELTER-
CHILD SNAP FIVE

BUY WHY DO WE REPEAT
WE HAVE TO BE A PART
QUERY WHY DO WE HAVE TO
SPEND OUR LIVES IN THESE
LITTLE CUBICLES MANEUV-
ERING DREAMS QUERY ENDS



DD/MM REF SHELTER-
CHILD SNAP FIVE

BECAUSE INEVITABLE DISCUSSION OF METHODS WOULD YIELD ONLY CONFUSION STOP EACH OF US MUST GIVE OF HIS BRACKET AND HER BRACKET BEST STOP MASCULINE AND FEMININE UTILITIES ARE CLEARLY DEFINED STOP SEEK COMFORT FROM FACT THAT ALL OVER SHELTERCHILD SITE HUSBANDS AND WIVES ARE SO PARTED STOP RE DREAMS QUERY COMMA IS IT NOT BETTER TO BE IN POSITION TO MAGIC UP CHILD DREAMS AND DESIRES THAN TO HAVE THEM BENT BY TOO MUCH TELEVİDEO AND TOO MUCH JOHNNY ACTION TOYSHIP QUERY ENDS

MM/DD REF SHELTER-
CHILD SNAP SIX

WHAT ABOUT LOVE REPEAT
LOVE QUERY

DD/MM REF SHELTER-
CHILD ANSA SIX

LOVE OF US QUERY LOVE
OF CHILDREN QUERY BE EXPLICIT
COMMA HONEY STOP
ENDS

MM/DD REF SHELTER-
CHILD SNAP SEVEN

LOVE OF CHILDREN COMMA
OF COURSE STOP CHILDREN
MUST HAVE LOVE STOP ENDS

DD/MM REF SHELTER-
CHILD ANSA SEVEN

THOUGHT YOU MEANT US
STOP SO YOU ARE GETTING
EMOTIONAL AGAIN STOP RE-
MEMBER SENTIMENTALITY
ONLY LEADS TO EXAGGERAT-
ED VALUES COMMA IS THERE-
FORE HARMFUL DASH AND
UNNECESSARY STOP ENDS

MM/DD REF SHELTER-
CHILD SNAP EIGHT

IF I HAD MEANT US COM-
MA IT WOULD NOT HAVE BEEN
UNNECESSARY COMMA I SUP-
POSE STOP LOVE IS PREROGA-
TIVE OF ADULTS STOP COZY
STOP I DON'T LIKE YOU STOP

DD/MM REF SHELTER-
CHILD ANSA EIGHT *

YOUR ATTITUDE MERELY
PROVES ACCURACY OF COM-
MISSION FINDINGS STOP TYP-
ICAL OF DOMESTIC SQUABBLE
LIKELY TO UNBALANCE RESI-
DENT CHILDREN STOP NO
MORE TO BE SAID STOP ENDS

MM/DD REF SHELTER-
CHILD SNAP NINE

I STILL SAY CHILD NEEDS
LOVE DASH AND SUCKS TO
COMMISSION STOP ENDS

Tina mounted the bird of yellowing privet and rode at the speed of a gentle breeze along the top of the hedge.

The fine high wall of shrub

followed the whole meandering perimeter of the garden, shifting at Will to encompass its unchartable moods.

Borne upon a product of its leaves, Tina crossed hump-back bridges over unopening gates and skirted great green spinning top creations.

It had been a magnificent Idea. Tina thrilled even now to its ingenuity as she jogged on, invisible and ever-watchful of the bowers and half-hidden spinnies for some sign of Addison.

Once she thought she saw him standing near an MR booth, but she could have been mistaken. The molecular recombination units had an inherent hallucinatory property. Nothing in their region was ever quite what it appeared. Or it NEED not be.

So it was with Tina. Skipping as usual, having again evaded Addison in the maze, she had come upon the garden boundary with its topping of foliate heraldry.

How much better to ride, she thought. On a bush bird.

She entered an adjacent cubicle and dialed.

Behind the rejig controls, the unit searched for a common codon, translating the DNA code of the Tina gene into the messenger-RNA template required for the new triplet base, forming the attendant spiral.

Then it fed in simulant functions—respiration-photosynthesis, sepalody-glandulation. It stored a little of this, paid out a little of that, until the body was the bird and the mind was a pure psychomotor, balanced astride in the conscious guise of a rider.

An off-shoot of the hedge ran inward, following a path Tina did not recognize, and she determined to veer right and follow it.

But she did not anticipate any effort and she was past the turn, bewildered, before she realized the difficulty.

She was motile, vivacious and thinking and dreaming in terms of action. It took a little time for her to work out her predicament.

Her muscular distribution and her tensile qualities had been deposited at the MR unit. Which meant that her only mode of movement now was the wind, presently whitening the leaves spasmodically, and any telekinetic surge she could will from her doubly-impulsive mind.

She felt annoyance and stamped an imaginary foot. Her idea had suffered a setback. It was no longer brilliant. It was no longer even bearable.

The bird jerked fitfully along the hedge-top until it came to

another MR unit and promptly disintegrated. It took all Tina's meager strength to dial her genetic home-code, "G...I...R...L."

In a remote corner of the garden, Addison wandered. Just today he was Addison.

It was a new game and they were still on the A's. Correction—he was still on the A's. The girl cared for no such discipline. She fancied a name, picked it and pinned it to her. Today, this day, this now, she was Tina. Probably.

Already, he was beginning to feel a discomfort low down in his virus-resistant stomach. If he had known the word, he would have called it "foreboding."

The setting was idyllic. They did what they pleased, which was little enough in any event. Sometimes, they walked together along the avenues, naming the trees; but more often, pursuing each other throughout the shifting coordinates of the garden.

And there was this early uneasiness. If he had known the word, he would have called it "apprehension."

The pursuit was a matter of Ideas and Tina—if she were still Tina—was the one with the Ideas. This was not as it should be, Addison thought. He preferred the walks, she the chases.

Whenever they were together, her eyes darted hither and thither like humming-birds. Then, when

they came to a molecular rejig unit she would enter quickly, dial a code and be gone, crawling like a caterpillar, drifting like a leaf.

The unit, a miraculous device programmed against impossibility, nevertheless set a restriction on its activities. The dialling had to register originality. A second-hand idea produced no response.

Addison (before he was Addison) had spent a number of day-times moving about the MR region seeking some tangible link with a power source. There was none—he was sure of that. The machines had to operate by a wave pattern or an encephalographic principle.

If he was to stay with the girl, he must think as she thought. And even then, the very fact that two of them shared an impulse made it redundant.

He had to think ahead of the girl—or else chase butterflies hopefully or ignore the challenge altogether, wandering as he wandered now.

Despite the pain of her presence, the garden was no fun without the girl. Somehow, he had to out-maneuver her.

DD9/SHCHLD RE MM9

SNAP NINE

APOLOGIES FOR REMARKS

RE COMMISSION STOP WIVES
ARE COMMA AS YOU SO RIGHT-
LY POINT OUT COMMA RATH-

ER MORE EMOTIONAL THAN IS
GOOD FOR THEM STOP I SHALL
COUNSEL HER STOP REMARKS
GUIDE REQUESTED STOP
ENDS

SHELTERCHILD HQ/DD9
SUGGEST YOU SAY NO MORE
RE SUCKS REMARK STOP HQ
IS ABOVE FEELING OFFENSE
FROM MM9 OUTBURST STOP
DIRECT MM9 THOUGHTS TO
VALUE OF TEACHING CHIL-
DRED HORROR OF COMMA FOR
INSTANCE COMMA NUCLEAR
WAR AND FASHION GARDEN
ACCORDINGLY STOP ENDS

DD9/SHCHLD HQ
THANKS FOR GUIDE STOP
POST HYPHEN WAR PHASE ACT-
IVATED STOP ENDS

DD/MM RE SHELTER-
CHILD SNAP TEN
CO HYPHEN OPERATION RE-
QUIRED FOR N WAR SYMBOL-
ISM PHASE STOP TRUST THAT
THIS IS ACCEPTABLE TO YOU
STOP ENDS

MM/DD RE SHELTER-
CHILD ANSA NINE
ANTI HYPHEN WAR CON-
CEPT ACCEPTABLE SINCE IT
REQUIRES LACK OF HATE
STOP IS THIS THE BEST YOU
CAN OFFER QUERY ONLY
DOUBT DASH IS FRIGHTRIGHT
WAY TO BANISH AGGRESSIVE
INSTINCTS QUERY STILL SAY
LOVE STOP ENDS

DD/MM RE SHELTER-
CHILD SNAP ELEVEN
NO TIME FOR HALF HYPHEN
BAKED FEMALE PHILOSOPHY
STOP FOR NOW COMMA JUST
DO AS YOU ARE DAMNED
WELL TOLD STOP ENDS

It all began with the strontium doll. Tina found the pitiful bundle lying in the middle of the path. She picked it up and then thrust it from her hastily, repelled by the charred clothing and palsied limbs.

Some sleep-fed reflex told her dolls should be pink, rounded, well-frilled.

"It is a victim toy."

She nodded to acknowledge the intelligence, unsurprised at its prompt emergence since she had never known any inadequate pause, any barrenness of expression.

After that first time, she and Addison found many such play-

things things, placed rather than scattered about the garden.

Addison stumbled on a curious construction of cold black simysteel, running his hand along the tube, moving the butt almost unconsciously to his shoulder while an itch started up in the first crook of his right index finger.

"It is a laser gun."

Always the voice that sound-

ed so much like his own, yet spoke of things he could not possibly know.

Then there were the mutants—terrible creatures of withered limb and disarranged features, explosive body chemistry and hormonal disharmony.

Addison came upon them together and found a new but short-lived closeness in shared nausea.

"There are the overkill people."

Two voices like their own, explaining, explaining.

When they opened their eyes again, the mutants had gone and their purpose had been served.

DD/MM REF SHELTER-
CHILD SNAP TWELVE

I HAVE WITHDRAWN POST
HYPHEN BOMB PHASE AND
CHILDREN ARE RESTING STOP
TIME FOR SLEEP FEED STOP
PLEASE ACKNOWLEDGE AND
ADVISE OF SLEEP FEED PRO-
GRAM STOP ENDS

MM/DD REF SHELTER-
ANSA TWELVE

SO WE ARE SPEAKING
AGAIN COMMA ARE WE
QUERY ACKNOWLEDGE
SLEEP FEED STOP PROGRAM
EXCESSIVE VIVID PROMPT OF
RIGHT HYPHEN WRONG STOP
SUBJECT BUY STOP AND I
STILL THINK LOVE MATTERS
STOP ENDS

Addison stirred on his bed of leaves and heard an attendant rustle a few feet distant. Tina—still Tina?—was back.

He listened for some sign of wakefulness but heard only the even rise and fall of her breath.

He rose silently and tiptoed to where she lay, squatting and looking down on her sleeping face.

When peace had smoothed some of the lines of youthful determination from her brow, she looked more like her ten years.

When he was fortunate enough to find her in genuine slumber and not just feigning sleep until he turned away and she slapped his calves, he often sat just so, trying to piece together some kind of beginning for himself.

She had not always been with him—at least, he did not think so. Certainly, the whole time they had been in the garden, they had been together. But when he hovered protectively—in the face of what?—over her sleeping form, he could pick out recollections as insubstantial as thistle down of locations and places which might have been memories but might just as easily have been dreams.

Tonight, for instance, his mind moved along streets in a city of prisms, where some eternal sun at horizon height cast a million paths for him to follow, and as many broad patches of shadow where he could find an illicit

coolness and a refuge from the spectral rays which colored this strange rainbow city, dappling his hands and his moving back.

For miles, it seemed, he had been following a violet trail, stepping from one pin-width of light to another to find some constant path that would take him wherever about the city that he wanted to go. But then the violet way petered out into darkness.

He stepped onto a nearby green way and kept to it as best he could, weaving among the great glass edifices. More miles before a broad, unnavigable belt of shadow separated him, at one extreme of the green band, from its continuation.

He saw no other person in all his journeyings hither and thither across the city; but something moved within the shadow. Something which had a loud voice and many feet but used them all silently.

He stepped onto a sweet blue walkway and went weaving again among the prism dwellings which carried only a yellow light at their apex and wished the wide, trafficless, formless, directionless streets with a showerfall of primary hues.

The blue trail ended. As did the red. Addison found himself, face pressed against one prism, trying to see beyond it, to perceive the yellow light that hung

like a sun at its innermost core.

Like a sun.

He must get to the sunward side of the city, but how?

He tried, knowing full well that he would not succeed, to scale the prism, but his hands and feet slipped and were done on the smooth sides.

Then he must go round the prisms. And there was shadow away from the focal point; where the colors radiated across the patchwork spaces.

He began to edge his way cautiously along the wall, his eyes fixed on the yellow core. He felt the increasing weight of the darkness on his back.

The something that inhabited the darkness raised its voice to a whisper, to a million million whispers that set his skin crawling and his ear-drums fluttering as though a breeze played through his head.

He was around the side of the prism now but the weight was not lifting. He moved fast but not too fast in case he should trip and take his eyes from the glowing core, which was changing to a horizontal shaft.

"Fall . . . fall . . . it is not bad to fall . . ."

His fingers traced the line as though it were some braille umbilica, and by and by he was at the back of the prism, a clear golden road stretching across the darkness to guide his feet. He

embarked upon it, strolling purposefully into the eye of the sun.

MM/DD REF SHELTER-
CHILD SNAP THIRTEEN
RETURNING CHILDREN TO
YOUR DIRECTION STOP
SCHEDULE SAYS FREE EX-
PRESSION STOP OF COURSE
COMMA I DON'T KNOW WHAT
YOU HAVE IN MIND STOP ENDS

DD/MM REF SHELTER-
CHILD ANSA THIRTEEN
SCHEDULE GOOD ENOUGH
FOR ME STOP HOW LONG DO
YOU INTEND TO KEEP THIS
UP QUERY ANIMOSITY GETS
THROUGH ON MOTIVATION
PARAMETERS STOP DON'T
THINK ME COMMA THINK MO-
THER STOP ENDS

MM/DD REF SHELTER-
CHILD SNAP FOURTEEN
THINKING MOTHER STOP
ENDS

Tina stirred uneasily, summoning Addison to his outer world. Shortly, she sat up and gazed at him curiously with wide eyes.

"Where were you this afternoon?" she asked. "I looked for you. I had the most marvellous Idea."

"You wouldn't have been able to tell me," said Addison and looked down upon his crossed legs. "Ideas don't speak. At least not your sort of Ideas. They

may buzz a little at times, or develop a scent of bougainvillea..."

"Well, I'll tell you now, I was a bush bird."

The full meaning was not immediately apparent to Addison.

"But you've been a bird before..."

"NOT made of privet," countered Tina with a gesture of pride. "I went right round the garden on top of the hedge."

"Did you . . ." Addison checked himself; a vague guilt had been born a minisec behind the question.

Now Tina was watching him, almost defying him to complete it. It was as though the broken sentence was an indication of subservience.

He shrugged the doubt away. "Did you see any of the Outside?" he asked quickly.

Only when she reflected on it did Tina realize that she had not once turned her eyes away from the garden.

"There was some kind of sight-shield," she lied. And then, just in case he should clamber up the hedge and look, she qualified her answer. "It is nothing visible. It is some kind of strong undesire to turn the eyes to unfamiliarity."

"You didn't look." This time at least, Addison could see through the deception.

"I COULDN'T look. Try yourself."

She knew he wouldn't take up

the challenge now that he could believe she had lied; he would not care to be seen taking that much notice of her pronouncements.

Back on his bed of leaves, he wondered why the unknown bothered him so. Surely he had everything he wanted.

But then, how did he know what he wanted until he knew what there was to have? And did the unknown bother him because it WAS unknown and for no other reason?

He cried quietly. A six-year-old knows no other way out of frustration.

Hearing his distress, Tina found her hand straying again to the jagged scarline which crossed her ribs. The skin had been torn as she bent to retrieve a younger, more errant Addison from one of the garden's few defiant bramble patches. It was a vain gesture prompted by her uncertainty, a habit of insecurity like the way she enjoyed the feel of a leaf's sharp edge between her fingers or folded into the palm of her hand; like the way Addison still sucked his thumb occasionally.

She stroked it now in the forlorn hope that her concern would somehow manifest itself in Addison as a replacement for the consolation she could not express. Gradually, his sobbing receded. She thought he had fallen asleep until he said:

"Why don't we know anything

about the Outside? I mean—if we know it's there, why aren't we told anything about it?"

"*It's a matter of obedience,*" said a voice like Tina's. "*A matter of doing what we are told.*"

"But what are we told?"

"We are told not to concern ourselves with *the Outside*."

"But why?"

"Because," said Tina.

"Because what?"

"Because because."

"That's stupid."

Addison leapt to his feet and moved across to Tina. For a moment, she thought he was going to strike her, and indeed he was until his programmed serenity won control and he stood above her awkwardly, swaying from side to side.

"That's stupid," he repeated limply.

"There are good reasons—you must be content with that."

"But what are those reasons?"

Tina pulled him down beside her and put a sisterly arm around his shoulder.

"I don't know," she said, and felt him go tense with renewed annoyance. "I know only that they are good reasons and that that should be enough for us. Perhaps further knowledge is . . . harmful."

"Perhaps it is something to do with the strontium doll . . ."

Addison entered into the speculation and felt better. "And the

overkill people and the . . . the . . ."—again a curious guilt made him hesitate—"the laser gun."

"Something it is better for us not to know," said Tina conclusively. Addison nestled against her.

"All right," he said.

A little later, he asked another question, drowsily—"Why were you here first?"

Tina found her hand moving back to the scar below her ribs.

"Sometimes, disobedience springs out of lack of responsibility. This was what happened before . . ."

But Addison's head lolled suddenly and Tina knew he had no word of her explanation. She had heard it alone.

MM/DD REF SHELTER-
CHILD SNAP FOURTEEN

I NOTED A HOSTILITY READING FROM THE BOY LAST NIGHT STOP I THINK HE NEEDS TO BE SHOWN LOVE STOP I AM NOT TRYING TO PROLONG THE ARGUMENT COMMA DARLING COMMA BUT I AM AFRAID THAT HIS NEED MAY FIND ANOTHER OUTLET STOP ENDS

DD/MM REF SHELTER-
CHILD ANSA FOURTEEN
CONFIRM HOSTILITY READING STOP WHAT BOY NEED-
ED WAS ANSWERS STOP RE-

PORT EXISTENCE OF INHER-
ENT IMPATIENCE STOP GIRL
COULD SHOW RECONCILIA-
TION STOP CAN I LEAVE TO
YOU QUERY ENDS

MM/DD REF SHELTER-
CHILD SNAP FIFTEEN

I AM SURE YOU ARE WRONG
STOP LOVE IS ALL ANSWER HE
WANTS STOP ENDS

DD/MM REF SHELTER-
CHILD ANSA FIFTEEN
REPORT IMPATIENCE DASH
OR I WILL STOP ENDS

MM/DD REF SHELTER-
CHILD SNAP SIXTEEN
BLIND BULLY STOP ENDS

The children breakfasted on the usual nuts and fruit, complemented with a filling cereal they found in a seeming never-ending store in the dwelshel.

"Who are you today?" the boy asked the girl. He allowed her first choice habitually because he liked to know where he stood—for the first few moments of the day, at least. After that, she would probably add further to his frustrations. She would not keep to the disciplines they had shared at the outset—spasmodically he remembered a better time and this was what he understood by "the outset"—and he felt a new indignation at each fresh infringement.

"No. You must be first," answered the girl. She waited, forming an "A" silently with her lips.

"Why?"

"For a change."

"So you can try some other trick on me."

"For a CHANGE," said the girl emphatically. "I'm ALWAYS FIRST. I want you to be first so that we'll know where we are and we can play together all day."

The boy pondered the new arrangement.

"'Able,'" he said finally.

"'Able' because I can do anything."

"'Able'? Or 'Abel'?"

"What's the difference?" the boy asked innocently..

Since he had asked there was no need to answer.

"Just a joke," said the girl.

He regarded her suspiciously. "Now you."

"I think I'll take a little time to think about it. I'll let you know."

"That's not fair. I told you my name. Now you must tell me yours. How can we get in touch with each other?"

"I'll get in touch with you?"

"It's not fair. You don't even stick to the A's . . ."

He sat hunched in his rustic chair, sulking. "You don't make it much fun for me. You should, you know. You have a duty."

The regretful words, dropped unsubtly into the conversation, caused the girl a twinge of con-

science and made her ponder.

What he had said was true, perhaps more true than he knew. She did have a duty to him. As yet it was still obscure; but she knew with certainty that she must deter him from any whim that might endanger their existence in the garden.

While she exulted in her own Ideas, made her own enjoyment out of her superior capacity to make use of the garden's strange gifts, he was left alone.

He was younger and less likely to reconcile himself to the life, building his own satisfaction within the meandering hedges; more likely to look for diversions and not always the wise ones.

She recollects how his finger had begun to curl around the trigger of the laser gun.

The younger you were, the more difficult it was to be strong—because you had no reason for trying and could understand no cause.

She watched him now with a certain warmth. The soft curve of his cheek, the slight snubness of nose, the pursed perfection of his presently-petulant mouth; it all filled her with a weak-knee quality she could not comprehend.

"All right," she said. "I'll promise. I shall be an A all day. See if you can find me."

She rose quickly from the table and paused as she passed his chair to run her fingers through

his curls. He turned his head away angrily.

"You don't want me," he said.

The words hurt her. "How can you say that? You know . . ."

"I'm a burden to you. You can't have things the way you want them because you have to think of me. So you try to deceive me all the time. You try to be cleverer. I know. Well, I'm sorry. I'd go away, but you won't tell me how."

"I don't know how." The girl bit back the words. She had reacted only to his last comment when sense told her she should have considered the whole of his outcry. But if she stopped to think, it would be too late.

"Oh, so you'd let me go." It was too late already. "You're all I've got and you want me to go. Fair enough. I hate you."

"Boy," she said gently. "Able . . . I didn't mean it like that . . ."

But Able (just today, he was Able) was gone down the path, hiding his reddening eyes.

The girl gathered up the platters and vessels and carried them back into the dwelshel. The exchange had shaken her. She was not at all sure what she could do.

As she stacked the crockery in the washbox, she went over the dialogue again, concentrating on what she had said to Able.

She had promised to be an A all day. She had invited him to find her. Perhaps, if she made

it a little simple for him . . .

MM/DD REF SHELTER-
CHILD SNAP SEVENTEEN
AM RECEIVING ANXIETY
PATTERN FROM GIRL STOP
BOY MUST BE SHOWN SHE
DOES NOT MEAN WHAT HE
THINKS SHE MEANS STOP AD-
VISE YOU USE MINDSWEEP SO
HE CAN FORGET EXCHANGE
STOP ENDS

DD/MM REF SHELTER-
CHILD ANSA SEVENTEEN
NO STOP MINDSWEEP
WOULD ONLY FACILITATE
MATTERS FOR GIRL STOP CON-
TEND UP TO GIRL TO MAKE
MOVE STOP BOY TOO YOUNG
TO ACCEPT CONCEPT THAT
TAKING BLAME IS LINE OF
LEAST RESISTANCE STOP
ENDS

MM/DD REF SHELTER-
CHILD SNAP EIGHTEEN
QUIT BEING SMART STOP
BOY MAY HAVE NOW PASSED
BEYOND STAGE WHERE APO-
LOGY WOULD SUFFICE STOP
SUBMIT IT IS NOT FAIR TO
GIRL TO EXPECT HER TO
KNOW WHAT TO DO NOW STOP
ENDS

DD/MM REF SHELTER-
CHILD ANSA EIGHTEEN
TELL HER THEN STOP ENDS

The path down which Able had

disappeared in such haste led indirectly to the school zone. There was an MR unit in the classroom to facilitate their physics studies. She could place herself there—for a while, at any rate.

Once inside the booth, she dialled A...L...P...H.

The unit slotted her request into the calcium program and she felt the chemistry beginning its chain.

Alphabet peered down from the blackboard with her 26 eyes, but there was no sign of Able within the school precinct or moving in the parkland visible through the window.

She waited for an hour and then willed the chalk characters from the board and drifted the dust into the booth for recombination.

She tried the recreation runs next, waiting while the local unit shunted her formula into the resin bank and then lying, blunt head down, in a quiver for another hour before allowing the breeze to direct her feather flights back to the booth.

She turned her steps to the playroom next, but again, Able was not to be seen. She digitized A...B...A...C, and waited while body ferrum and sulphur drew a match which made her a wooden frame with parallel wires which carried brightly colored counting beads.

But Able did not come. Even

though she finally forsook any pretense of sport and called his name until her throat was sore, Able did not come.

MM/DD REF SHELTER-
CHILD RUSH ONE

GIRL HAS GONE TO EX-
TREMES TO CONTACT BOY
STOP NO SUCCESS STOP FA-
THER MUST REPEAT MUST
ACT STOP ENDS

DD/MM REF SHELTER-
CHILD SPEC ONE

PRODUCING NON HYPHEN
VIOLENCE MOTIF DISCIPLINE
STOP DON'T PANIC STOP ALL
UNDER CONTROL STOP ENDS

Able did not come because he knew she was looking for him. He heard her shouting, but instead of responding, he found a molecular rejig unit in a distant corner of the park and tried his own words on the dial.

First, he fingered out H...A...T...E.

The machine went dead. The silence which followed seemed to take on a definite personality.

"You shall not kill," he heard himself say. "You shall not kill."

An unseen hand propelled him forth across the garden. He stumbled on the strontium doll.

"She was a victim toy."

He found the laser gun suddenly in his right hand.

"This is a killer."

The mutants barred his path and he fell upon his knees before them, dislodged by the sudden withdrawal of the force.

"These were killed without dying. These were dead though they still drew breath."

Then the force picked him up again and carried him on.

"You shall not kill. You shall NOT kill."

Unexpectedly, he was back in the booth, breathless and frightened. It was as though some person watched how his fingers moved on the dial.

"I shall be an A all day," the girl had said.

He dialed "A . . .," and his imagination failed him. He tried "A...B...C...D..." as proof of his desire to obey, but his nervous fingers slipped on the digits.

Instead, he dialled "A...B...A...D..." and all restraint and hesitation withdrew with a terrible sigh, as an agonized breeze through bare, wounding branches. But the machine clicked and hummed its inevitable way.

"A...B...A...N...D...O...N."

The boy felt his mind bulked with horrific knowledge, his heart extinguished with cold water, his fearful tears dried before they could surface. Of an instant, he knew the easy beauty of the darkness and the tainted deviations of the prisms.

DD/MM REF SHELTER-

CHILD RUSH TWO

BOY HAS JAMMED MY OUT-
PUT STOP DON'T ASK HOW
STOP AM NO LONGER IN EM-
PATHY WITH HIM STOP GIRL
MUST REPEAT MUST CONTAIN
HIM UNTIL I CAN RENEW CON-
TACT STOP ENDS

MM/DD REF SHELTER-
CHILD SPEC TWO

AM PUTTING GIRL TO
FLIGHT STOP IF BOY IS AN-
GRY SHE IS NOT GOING TO
BEAR BRUNT STOP I TOLD
HOW TO CONTROL HIM STOP
MAKE YOUR OWN CONTACT
STOP ENDS

Abaddon laughed. He considered the garden. He revelled in the limitlessness of his own devilmint. He strode purposefully through the vegetation, trampling it before him.

The girl had found her way to the MR booth in the shadow of the hedge where she had ridden the day before. Now, she could hear the thrashing progress of some thing, a sound that came ever nearer.

Able was taking his spite out on the garden. It must be he.

She must avoid him. But how? And should she still play in fairness to him, in a last bid to appease him?

She would change. He would pass her by. But at least she would have retained her good intention. Her thoughts fled to the

classroom, to the wall-chart there.

"A is for Apple. A is for Apple."

MM/DD REF SHELTER-
CHILD RUSH THREE

I FEAR FOR GIRL STOP I
WARNED YOU STOP

DD/MM RE SHELTER-
CHILD SPEC THREE

DON'T WASTE MY BLOODY
TIME WITH THREATS STOP IT
WILL WORK OUT STOP ENDS

The rolling apple touched Abaddon's foot as he walked. He picked it up and polished it while he looked for the tree from which it had fallen.

Then he sank his teeth into it, deliberately ignoring the small scar that marked its glistening surface and amusing himself with the scream that seemed to cleave to the roof of his mouth and filter through the crowded chambers of his brain.

He threw the core down carelessly on the grass verge. After that, the gates out of the garden opened easily.

MM/DD UNSPECIFIED
CHILD KILLER STOP I WILL

GET YOU NOW STOP ENDS

SHELTERCHILD HQ/DD9
CLASSIFIED

WE HAVE RECEIVED GRAVE
COMPLAINT FROM MM9 STAT-
ING YOU DELIBERATELY EN-
GINEERED DEATH OF GIRL
AND BOY WE HAVE BEEN
FORCED TO DESTROY STOP
STUDY OF YOUR TAPES RE-
VEALS MM9 PERSISTENTLY
WARNED YOU OF NEED FOR
SUBTLER METHODS BRACKET
LOVE STIMULUS BRACKET
STOP WHY DID YOU NOT CON-
TACT US FOR ADVICE QUERY
REFUSE TO BELIEVE THIS
WAS MERE BAD JUDGMENT
ON YOUR PART STOP SHEL-
TERCHILD PROJECT NOW BE-
COMES RIDICULOUS STOP
COMMISSION ON UPBRINGING
DEMANDS YOUR SCALP COM-
MA MY RESIGNATION STOP
WHAT IS YOUR EXPLANATION
DASH AND IT HAD BETTER BE
MEMORABLE QUERY ENDS

DADDY 9/SHCHLD HQ
RE MUMMY 9 CLAIM
BOYS WILL BE BOYS STOP
ENDS

The End

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The Pulitzer Prize – Winning Author THE GREEN SPOTCHES T.S. STRIBLING Illustrated by GAMBEE

From the late T.S. Stribling—Pulitzer Prize winner (1933) and creator of the Professor Poggioli detective stories—here's a brilliantly conceived, ironic short novel set in Peru's dread Valley of the Rio Infierno—where three helpless geographers encounter an "Indian" with green "blood" in his veins and two million dollars' worth of radium in his pocket!

(Transcribed from the field notes of James B. Standifer, Secretary DeLong Geographical Expedition to the Rio Infiernillo, Peru, with introductory note by J.B.S.)

SECRETARY'S NOTE

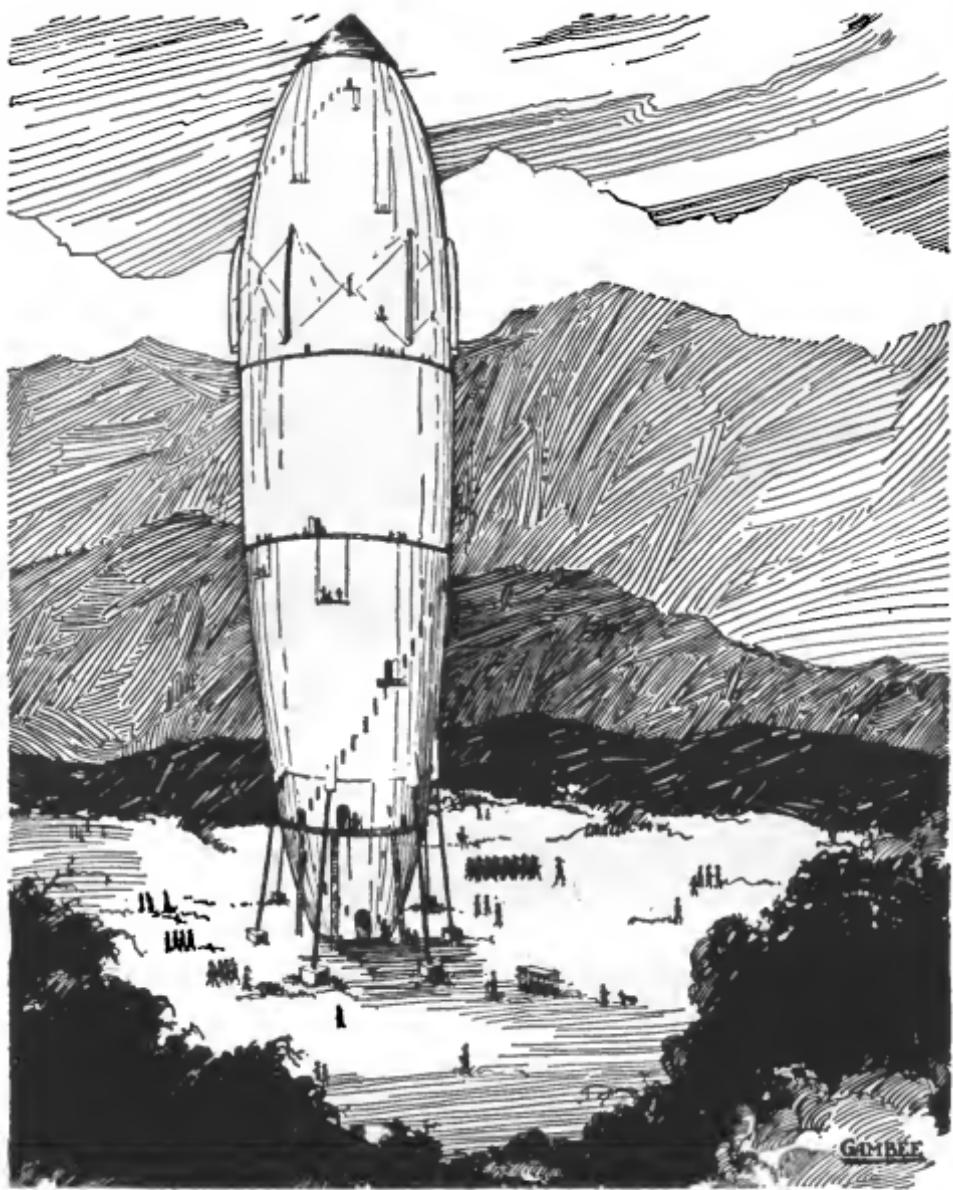
This strange, not to say sinister, record of the DeLong Geographical Expedition to the department of Ayacucho, Peru, is here given to the public in order that a wider circulation of the facts herein set forth may lead to some solution of the enigmas with which this narrative is laden.

These field notes have been privately circulated among the

members of the DeLong Geographical Society, and the addenda to this account written by our president, Hilbert H. DeLong, have proved highly gratifying to the writer. No doubt this effort at publicity will bring forward another and equally interesting hypothesis.

It is hardly necessary to warn readers who devote themselves exclusively to fiction that this record is not for them.

Fiction deals in probabilities; geographical societies, unfortunately, are confined to facts. Fiction is a record of imaginary events, which, nevertheless, adheres to and explains human experience. Facts continually stop



outside of experience and offer riddles and monstrosities.

Thus, in a way, fiction is much truer than fact. Fiction is generalized truth; it is an international legal tender accredited everywhere; fact is a very special truth, which passes current only with the most discerning—or with none.

Therefore, the writer wishes heartily to commend the great American scramble after fiction. It shows our enlightened public wishes to get at the real universal truths of Life, without wasting precious moments on such improbabilities as science history and exploration.

To the last of this censored list these field notes unfortunately belong.

In conclusion the writer wishes to admit that he favors the Incan theory in explaining this narrative, and the reader is warned that this prejudice may color these notes. However, it has not been the writer's intention to do violence, through any twisting of fact, to the Bolshevik theory of Prof. Demetrius Z. Demetriovich, the Rumanian attache to the expedition, or to the Jovian hypothesis of our esteemed president, the Hon. Gilbert H. DeLong, than whom, be it said, no man is more tolerant of the views of others. —James B. Standifer, Sec., DeL. Geo. Exp. Sept 17, 1919

TRANSCRIBER'S NOTE

The writer met the DeLong Geographical Expedition at Colon in June, 1919, on its way to New York. His curiosity was strongly aroused by the fact that every member of the party, even to the twenty-four-year-old secretary of the expedition, seemed to be suffering from some nervous complaint in the nature of shell shock.

At that time the writer was correspondent for the Associated Press and he naturally saw a "story" in the returning scientists. After some effort and persuasion, he obtained Mr. Standifer's field notes and photographs. The photographs were practically worthless on account of the deterioration of the films. And a single glance through the notes showed him that they were not practicable "A.P." material. After much consideration and many discussions with Mr. Standifer, the writer decided that the only possible form in which these strange memoranda could be placed before the public was in the guise of fiction.

Unfortunately this disguise is neither deep nor cleverly done. The crude outline of the actual occurrences destroys an approach to plot. Many of the incidents are irrelevant, but the only condition upon which Mr. Standifer would agree to this publication at all was that the

record be given in extenso, "for the benefit," he stated "of future and more studious generations."

In fact, throughout the writer's association with him, Mr. Standifer seemed of a sour, not to say misanthropic disposition. His sarcasm, which he hurls at the American fiction-reading public in his prefatory note, is based entirely, the writer believes, on the fact that Standifer wrote a book of travel called "*Reindeer in Iceland*," which he published at his own expense and which entirely failed to sell. That, no doubt, is enough to acidulate the sweetest disposition, but in a way it goes to prove that Standifer's notes on the Peruvian expedition are a painstaking and literal setting forth of genuine experiences, for a perusal of his book entitled, "*Reindeer in Iceland*," which the writer purchased from Mr. Standifer for fifty-four cents, shows its author has absolutely no imagination whatever.

It is hardly worth while to add that the explanatory note appended to this narrative by that distinguished scholar and author, the Right Honorable Gilbert H. DeLong, has not been touched by this pen. —T.S., Sept. 27, 1919.

SEÑOR Ignacio Ramada, prefect of the department of Ayacucho, tapped his red lips under his moustache to discourage an

overpowering yawn. It was mid siesta, high noon. He had been roused out of profound slumber by his *cholo*—boy—and presented with a long, impressive document with a red seal. Now he stood in the Salle des Armes of the governor's mansion, holding in his hand the letter of introduction from the *presidente* of the Lima Sociedad de Geografico, very much impressed even amid his sleepiness by the red seal of the Sociedad and by the creaking new equipment of his callers.

"How, *senores*, can I assist in such a glorious undertaking?" he inquired in Spanish.

"We need guides," explained Prof. Demetriovich, who was the linguist of the party.

"Where does your journey carry you, *caballeros*?" inquired the official, crackling the parchment in his hand.

"To the region beyond the Mantaro, called the Valley of the Rio Infiernillo."

Señor Ramada came out of his sleepiness with a sort of start.

"No!"

"Yes."

The prefect looked at his guests.

"*Senores*, no one goes there." Pethwick, the engineer, smiled.

"If the region were quite well known, Señor Ramada, it would hold little attraction for a geographical exploration party."

"Well, that's true," agreed the prefect after a moment's thought, "but it will be quite difficult to

get a guide for that place; in fact—" here he swept his visitors with a charming smile—"the better a man knows that region, the farther he keeps away from it. Seriously, gentlemen, why not explore a more hospitable locality, where one can find a comfortable inn at night and procure relays of llamas whenever necessary, for your baggage?"

Pethwick smiled friendly.

"We did think of exploring the suburbs of Lima, but the street service was so bad—"

"Do you read novels?" inquired Standifer, the young secretary of the expedition.

"Why—yes," admitted the prefect, taken aback. "I am fond of Cisneros, Lavalle, Aretegui—"

The secretary pressed his lips together, nodded disdainfully and without further remark looked away through the entrance into the diamond-like brilliance of tropical sunshine in mountainous regions.

The prefect stared. "Senor," he said rather sharply, "if you do not approve my literary taste—"

Pethwick stepped to the little Spaniard's side and whispered quickly:

"Overlook it, *senor*, overlook it. Literature is a tender point with him. He has lost one hundred and fifty-four dollars and forty-seven cents on an unprofitable literary venture. In fact, he is a young author."

He nodded confidentially at the prefect.

The official, with Latin delicacy, nodded back and patted Pethwick's arm to show that all was again well. Pethwick then said aloud:

"So we shall have to try to find our own way into the Valley de Rio Infiernillo?"

Ramada looked worried. Presently he slapped his hand on a mahogany sword cabinet that glowed warmly in the subdued light of the *salle*.

"*Senores!*" he cried, rattling the letter of introduction with his left hand. "It shall never be said that the prefect of the department of Ayacucho did not exert plenary powers to aid in disclosing to the world the enormous riches of his province and his native land!"

"So we may expect something?" inquired M. Demetriovich.

"I have the power to force someone to go with you," dramatically announced Ramada.

"Whom?" asked Standifer, looking around.

"Naturally my authority doesn't extend over free men," conditioned the prefect.

"Your slaves?" inquired the secretary.

"Sir," announced the prefect, "wherever the Peruvian banner waves, Freedom smiles!"

"What at?" inquired the literal secretary.

As the governor was about to take new offense the old Rumanian hastily inquired:

"Whom do we get, *Senor Ramada*?"

"Senores, a garroting has been widely and I believe successfully advertised to take place on the fifth of August. If I may say it, *caballeros*, my political career depends in great measure on meeting fully and completely the thrills offered by the prospectuses. The executions will be followed by a bull-fight. It was, gentlemen, if I may say it, it was to be the turning point of my political career, upon the prestige of which I meant to make my race for the presidency of our republic.

"Gentlemen, a time comes in the life of every statesman when he can sacrifice his country to his personal ambition, or his personal ambition to his country. That moment has now come in the life of Gonzales Pizarro Ramada. Gentlemen, I make it. Gentlemen, I am going to remit the extreme penalty placed by the *cortes* upon a murderer and a highwayman and permit them to go with you, gentlemen, as guides into the Valle de Rio Infiernillo."

Pethwick, who had been smiling with immense enjoyment at this rodomontade, straightened his face.

"A murderer and a highwayman!"

"Charming fellows," assured

the prefect. "I often walk down to the *carcel* and converse with them. Such *chic!* Such original ideas on the confiscation of money—really very entertaining!"

The expedition looked at the eulogist a moment.

"Give us a minute to talk this over, *Senor Ramada*?" requested M. Demetriovich.

The prefect made the accentuated bow of a politician, adding that the republic would be proud to furnish chains and handcuffs to guarantee that her sons did their duty in the discharge of a patriotic function.

The three gentlemen of the De-Long Geographical Expedition spent an anxious five minutes in debate.

Presently Pethwick called:

"*Senor Ramada*, are you absolutely sure we cannot procure guides who are less—questionable for this journey?"

"Gentlemen, to be frank," said the prefect, who had also been studying over the matter, "I doubt very much whether either Cesare Ruano or Pablo Pasca would be willing to accompany you under those terms. I cannot force them. The law prohibits any unusual or cruel infliction of the death penalty and to send them to the Valley of the Rio Infiernillo would fall under that prohibition."

The four men stood meditating in the Salle des Armes. Professor

Demetriovich stirred lazily.

"Let's go have a talk with them," he suggested.

Contrary to Ramada's fears, Cesare Ruano, the man-killer, and Pablo Pasca, the road-agent proved willing to escore the party to the Rio Infiernillo. So on the following day the expedition set forth with the legs of the convicts chained under their mules' bellies.

Ayacucho turned out *en masse* to watch the departure of so distinguished a cavalcade, and it might as well be admitted at once that none of the adventurers made so brave a showing or saluted the villagers with more graceful bows than did Cesare Ruano or Pablo Pasca. In fact, they divided the plaudits of the crowd about equally with the prefect, who kept murmuring to Pethwick:

"Not a bad stroke, *Senor* Pethwick, not a bad stroke."

The legs of the convicts were chained, naturally, to prevent any sudden leave-taking, but this plan held disadvantages. When one of the llama packs became loosened, either the scientists had to bungle the job themselves or take the leg-cuffs off their prisoners and allow them to dismount and do it for them. This entailed endless chaining and unchaining, which quickly grew monotonous and at length was abandoned after the geographers had exacted a solemn pledge of the two cutthroats not to run away. That much of the

contract the guides kept to the letter. They never did run away, although the company lost them.

M. Demetriovich retained the manacles on the horn of his saddle, where, he told Pethwick, he hoped their jingle would have a great moral effect.

Oddly enough both the convicts were entirely innocent of the charges preferred against them, upon which they were convicted and so nearly executed.

Pablo Pasca told the whole circumstance to Pethwick. He, Pablo, did meet an old man one freezing July night in a mountain pass on the road to Ayacucho. They stopped and held some converse and Pablo had borrowed from him two hundred and forty-seven *sols*. Then what did this ingrate of a creditor do but beat his head against a tree, break an arm, go before a *magistrado* and charge Pasca with highway robbery.

Pablo's black eyes flashed as he related the incident. He had been amazed at such calumny, which he could not disprove. The jury believed the old wretch and sentenced Pablo to the garrote.

However, the One Who Ruled the Earth knew the truth, and Pasca prayed every night that he should not have his spinal cord snapped on such an unjust charge. So the One Who Ruled sent this society of fine gentlemen and scholars to fraternize with Pablo and to lift him to an exalted station. So he, Pablo, sup-

posed now all the neighbors saw that his oath, as strange as it sounded, was true to the last jot and title. The padre in his visits to the *carcel* had taught Pablo a little verse which he should never forget: "Seest thou a man diligent in his profession—he shall sit before kings."

Cesare Ruano did not go so much into detail as did his fellow guide and friend, but he told Pethwick that the crime for which he was sentenced to the garrote was trivial and with a shrug of his shoulders let it go at that.

The trivial affair, however, had left a number of marks on Ruano's person, all of which the Ayacucho police had tabulated. A copy of this table was given M. Demetriovich in order that he might advertise for Cesare in case he should desert.

Pethwick read the inventory. It ran:

Cesare Ruano, a *cholo*, 27 years, reddish yellow, height 5 ft. 7 in., weight 84 kilos, (189 lbs.), muscular, broad face, prominent cheek-bones straight nose with wide nostrils, very white teeth, handsome. Scars: from right eyebrow through the right cheek to the lobe of ear; from left side of neck to the middle of chest bone; horizontal scar from nipple to nipple, rifle or pistol wound in right leg, two inches above knee; three

buckshot in back, one in left buttock; little toe on left foot missing. Disposition uncommunicative, but of pleasant address and cheerful until irritated. A very handy man. Note: In case of arrest, officers are advised to shoot before accosting Ruano.

On the first few nights the travelers found lodgings at little mountain inns, whose red-peaked roofs of tiles were pulled down like caps over tiny eye-like windows. The tunnel-like entrance to such a hostelry always looked like a black mouth squared in horror at something it saw across the mountains.

This was much the same expression that the proprietor and guests wore when they learned the travelers were bound for the Rio Infiernillo.

Pablo Pasca always broke the news of their destination in rather dramatic style to the gamesters and hangers-on with which these centers of mountain life were crowded.

"Senores," he would harangue, "you see before you a man sentenced to death; but because no garrote could affect his throat, so hard has it become from drinking gin, the prefect decided to send him on a journey to the Rio Infiernillo! Let us drink to our good fortune!"

This announcement usually brought roars of applause and

laughter. Once a roisterer shouted:

"But your companions; what caused them to be sent?"

And Pablo answered with a droll gesture:

"One is a murderer, the rest are Americans!"

It made a great hit. The crowd invited Pablo to share its brandy.

However, after these introductions the landlord would presently stop laughing and after some questions invariably warn the scientists against their "mad undertaking." On two such occasions the proprietor became so earnest and excited that he begged the *senores* to walk out with him up the mountain-side to see for themselves the terrors that confronted them.

Pethwick never forgot his first glimpse of the mystery that colored his thoughts and dreams for the remainder of his life.

The night was clear but moonless. The party climbed uncertainly in darkness up a scarp of boulders and spurs of primitive rock. The landlord picked his way toward a clump of calisaya trees silhouetted against the sky. The chill air was shot with the fragrance of mountain violets. The climbers lent each other hands until the landlord reached a protruding root and then everybody scrambled up.

Pethwick dropped down breathless at the foot of the tree, his heart beating heavily. At first he

was faintly amused at his hosts's promise of a portent, but this amusement vanished presently amid the solemnity of night and the mountains.

The very stars above him wore the strange aspect of the Southern constellations. Against their glimmer the Andes heaved mighty shoulders. Peak beyond peak, they stood in cold blackness, made more chill and mysterious by the pallor of snow-fields.

The whole group shivered in silence for several minutes. At last M. Demetriovich asked with a shake in his Spanish:

"Well, *amigo*, what is there to see?"

"Wait," began the landlord.

At that moment a star shot far out against the blackness.

"*Alla!*" gasped the Peruvian.

Pethwick shivered and grinned. He had brought them up to see a shooting star.

"But wait!" begged their host, sensing the engineer's mirth.

Almost at once from where the star seemed to strike arose a faint, glowing haze as indefinite as the Milky Way. It must have been miles distant. In front of it two or three massifs were outlines and others, farther away, were dimly truncated by its radiance.

The *huesped* drew a long breath.

"Now there lies the Rio Infiernillo," he chattered. "It is a land from which no man returns alive. I have known many men to go,

senores, thinking surely there must be great treasure where so much danger lay—and there may be, *senores*. No man can say. Every man has his opinion about the matter. I will tell frankly what mine is—”

He paused, evidently waiting for some one to urge his opinion.

Instead, Standifer spoke up:

“My opinion is it’s a meteor and a phosphorescent display which sometimes follows.”

The landlord laughed through the darkness with immense scorn of such a puerile opinion.

“What is yours?” inquired Pethwick.

“*Senores*,” defined the tavern-keeper solemnly, “that stream is called the Rio Infiernillo for a very good reason. For there every night comes the devil to dig gold to corrupt the priests, and—and, of course, the Protestants, too,” he added charitably. “But he can never do it, *Senores*. Let him dig till he scoops down the mountains and reaches his own country, which is the source of the Rio Infiernillo—he will never do it!”

“Has any one ever seen where he has dug?” asked Pethwick, amused again.

“*Si, señor.*”

“I thought you said no one ever went over there and got back alive,” observed Pethwick carelessly.

A slight pause; then the landlord explained:

“This man only lived a few min-

utes after he fell into my door. I saw him. His hair was white. He was burned. I heard his last words. No one else heard him.”

This was uttered with such solemnity that Pethwick never knew whether it was an account of some weird tragedy of the mountains or whether it was cut out of whole cloth.

That night after Pethwick had gone to bed in the upper story of the hostelry, while the laughing and drinking flowed steadily below, it occurred to him that it was odd, after all, that the landlord should have led them on such a clamber to see a shooting star and a haze—and the two phenomena should have occurred so promptly.

On the following night another landlord led them out on the same mission and showed them the same set of wonders. His explanation was even more fantastic than the first.

Before the party retired that second night, Pethwick asked of M. Demetriovich:

“Professor, what is the probability that two meteors should perform the same evolutions in the same quarter of the sky and apparently strike in about the same place on two nights in succession?”

“I’d thought of that problem,” returned the savant yawning. “In fact, I have set down some tentative figures on the subject.” Here he referred to a little note-book.

"It is roughly one chance in two-million."

"Small," observed Pethwick.

"That was for the stars alone. For two stars to fall in the same phosphorescence, diminished the probability to one chance in eight trillion."

Pethwick whistled softly.

"In fact, it was not a meteorite we saw," concluded the professor crawling into bed.

Chapter II

Pablo Pasca shouted something from perhaps a hundred yards up the trail. He was hidden from the string of toiling riders by a fold in the precipice. Pethwick looked ahead and saw two vultures launch themselves out over the abyss. One swung back down the face of the mountain and passed within forty feet of the party. Its feathers whistling, its bald, whitish head turning for a look at the intruders and its odor momentarily tainting the cold wind.

A moment later the engineer saw the two guides had dismounted and their mules were snorting and jerking on the very edge of the precipice. The men themselves were staring at something and Pasca seemed almost as panic-stricken as the animals. The unquietness spread rapidly down the string of baggage-carriers.

Pethwick slid off his mount and hurried forward, slipping inside the llamas and dodging past

the uncertain heels of the mules. He came out by the side of Pablo to a queer, not to say gruesome sight.

In the air circled eight or ten vultures. They had been frightened from a row of skeletons, which evidently were articulated on wires and iron rods and stood before the travelers in the awkward postures such objects assume. Among the things, Pethwick recognized the whitened frames of snake, condor, sheep, vicuna, puma, monkey and at the end, standing upright, the bones of a man.

The specimens were accurately spaced around the end of the trail, for this was the last of the road. The skulls grinned fixedly at the DeLong Geographical Expedition. In the gusty wind the arms of the man swung and beat against his thigh bone in a grotesque travesty of mirth.

Something touched Pethwick from behind. He turned with a shudder and saw Standifer. The secretary of the expedition looked at the assemblage for a moment, then drew out his note-book and pen, gave the pen a fillip to start a flow of ink and methodically jotted down the list before him. When he had finished he glanced up inquiringly as he rescrewed the top on his writing instrument.

"Don't suppose anyone is moving a museum, eh, Pethwick?"

"No," said the engineer, studying the figures.

"You don't think so?" Standifer snorted.

"Certainly not!"

"Huh!" Standifer drew forth his book again. "Makes a sort of little mystery of it, doesn't it?"

And he jotted down this fact.

Prof. Demetriovich made his observation on the probable source of the objects before them.

"Standifer's hypothesis is not as bad as it sounds, Pethwick," observed the savant.

"You don't mean these really belong to some scientist?" cried the engineer.

"I think their arrangement proves it."

The engineer looked at the professor curiously.

"These skeletons are arranged in the order of their evolutionary development."

A glance showed this to be the case and it rather surprised Pethwick.

"Does that hold any significance?"

M. Demetriovich walked over to the frame of the puma and shook it slightly as he inspected it.

"It would suggest a scientist arranged these specimens. A savage or a rustic would have been more likely to have strung them out according to size, or else he would have mixed them higgledy-piggledy, and the probability that he would have hit on their evolutionary order would have been remote indeed." The professor

gave the puma's bones another shake. "Besides that, this articulation is very cleverly done—too cleverly for unpractised hands."

"But why should a scientist leave his specimens out like this?" demanded the engineer in amazement.

"To begin with, this seems to be the end of the trail—the shipping-point, so to speak, and for the further reason that water boils at a very low temperature at this altitude."

As the professor's fingers had touched some particles of flesh still adhering to the puma's vertebrae, he stepped across to a little patch of snow stooped and washed his hands in it.

His two companions stared at him.

"Water boiling at a low temperature—altitude—what's that got to do with it?" interrogated the engineer.

The scientist smiled.

"I thought you would see that. If boiling water is too cool to clean the bones properly, here are some very trustworthy assistants above us."

M. Demetriovich indicated the vultures still soaring overhead.

The secretary, who had been scribbling rapidly during the last part of this discourse, now crossed out a few lines on a former page with the remark: "Well, there is no mystery to it after all."

"But look here!" exclaimed Pethwick. "We're scooped!"

"What do you mean—scooped?" asked the old Rumanian.

"Somebody has beaten us to this field. There are rival explorers in these mountains."

"Tut, tut," chided the old man. "You should say, my dear Pethwick, we have 'colleagues' instead of 'rivals.' I am charmed to believe they are here. We must get with them and try to be of assistance to them."

The kindly old scientist stared away among the great bluish peaks, speculating on where his "colleagues" would be.

"But look here," objected Standifer in alarm; "there will be another secretary with that expedition, grabbing all this literary material—"

"Lads, lads," reproached the old savant, "you have yet to learn the opulence of nature. She is inexhaustible. This party, another party, fifty parties toiling at the same time could never fathom all the marvels that lie under the sweep of our gaze. Why, gentlemen, for instance, in Bucharest I and a colleague worked for three years on the relation of the olfactory system of catarrhine monkeys with that of human beings. Our effort was to approximate in what epoch the sense of smell became of secondary important to humanity. This, of course, would mark a great change in the mode of living among men."

"As I say, we spent three years on the two nervous systems and

yet our discoveries were most dissimilar. Now, what are a few white nerve-threads to all this wilderness of snow and boulders? Your fears are quite baseless."

His two companions laughed, half ashamed of their jealousy, and then inspected the scene before them, which up till now had been lost in the grisly detail of the skeletons.

The mountain side on which they stood dropped away in an enormous declivity fully a mile and a half deep and led into a vast and sinister valley that stretched toward the northeast until its folds and twists were lost among the flashing peaks.

The extraordinary part of the scene was that instead of spreading the vivid green of the tropics below the tree-line this great depression looked black and burned. The ensemble recalled to Pethwick certain remarkable erosions he had seen in the West of the United States. Only here, the features were slashed out with a gigantism that dwarfed our western canyons and buttes.

And there was another striking difference. In the North American West the Grand Canyon and the Yosemite glow with a solemn beauty. Here the chasm looked like a raw and terrible wound of fire. It's blackened and twisted activities might have been the scars of some terrible torment.

A river lay through the center

of this cicatrix, and although latter it proved nearly half a mile wide, it was reduced to a mere rivulet amid such cyclopean setting. It twisted in and out, now lost to view, now shimmering in the distance, everywhere taking the color of its surroundings and looking for the world like one of those dull, spreading adders winding through the valley.

Pethwick now fully understood why the Indians had given the peculiar name to the river. It was a sobriquet any human being would have bestowed upon it at first glimpse. It required no guide to tell Pethwick he was looking down upon the Rio Infiernillo.

"This is the place, *señor*," said Pablo Pasca.

"Do we start back from here?"

Pethwick looked at him in surprise.

"We'll spend the next sixty days in this valley."

"I mean Cesare and myself, *señor*," explained the Zambo in hangdog fashion.

"You and Cesare!"

"We have shown you the Valley of the Rio Infiernillo—that was all we promised, *señor*," pursued Pablo doggedly.

Ruano glanced around. "Speak for yourself, Pablo?"

"You are not going into this den of Satan, are you?" cried Pablo to the murderer. "Past these—these"—he nodded at the skeletons.

Ruano grinned, showing two

rows of big white teeth. "I'll go help make some more skeletons," he said carelessly.

Pethwick began to explain away Pasca's fears.

Those are nothing but the specimens of a scientific expedition, Pablo."

"Do scientific expeditions collect skeletons?" shuddered the thief.

"Yes."

"Will you do that?"

"Very probably."

"And leave them for the birds to pick?"

"If we don't boil them." Pethwick grew more amused as the fears of his guide mounted.

"*Dios Mio!* What for?"

"To study them," laughed the engineer.

Pablo turned a grayish yellow.

"And you kill men and let the buzzards pick their bones—to study them?" aspirated the half-breed. "Will you kill me—and Ruano?"

"Certainly not!" ejaculated Pethwick, quite shocked. "What a silly idea!"

"But the other gang did, *señor*," cried the Zambo, nodding at the skeleton of the man at the end of the line, "and no doubt, *señor*, they told their guide that all was well, that everything was as it should be, until one fine day—*pang!*"

"And here he stands, grinning at me, slapping his knee to see another big fool go down the

scarp head over heels."

At such a hideous suspicion all three scientists began a shocked denial.

What did Pablo take them for-ghouls? They were civilizedmen, scientists, professors, engineers, authors.

"Then why did you choose for guides two men condemned to death unless it was to kill them and stay within the law?"

They reassured the robber so earnestly that he was half convinced, when unfortunately an extra gust of wind set the skeleton clapping his knee again.

The gruesome mirth set Pablo almost in a frenzy.

"*Ehue!* Yes! But how did the other party get their man? No doubt they found a dead man in this devil's country! Oh, yes, dead men are frequent in this place where men never go! They didn't kill their guide to study his bones. Oh, no! Not at all! Ha! No! He dropped dead. Very reasonable! Ho!"

With a yell he dropped his mule's rein and leaped for the mouth of the trail.

But Cesare Ruano was quicker than the thief. The murderer made one leap, caught the flying Zambo by the shoulder and brought him in a huddle on the stones.

The robber shrieked, screamed, began a chattering prayer.

"Oh, Holy Mary! Blessed Virgin! Receive my soul! I am to be

killed! O, Most Blessed Queen!"

The words seemed to arouse some sort of anger in Cesare, for the big fellow shook Pablo till his teeth rattled.

"Shut up squeaking, you rabbit! Can't you tell when a man is about to murder you? There are gentlemen! You will stay with this party, coward! and do the work! You will help me! I will not leave them and neither will you. *Sabe?*"

As he accented this "*Sabe?*" with a violent shake, Pablo's head nodded vigorously whether he wanted it to or not.

Oddly enough the trouncing seemed to reassure Pasca more than all the arguments of the scientists.

"You are a shrewd man, Cesare," he gasped as soon as he was allowed to speak. "Are you sure they won't hurt us?"

Ruano laughed again, with a flash of teeth.

"They can't hurt me. I could mash these little men with my thumb. Whom are you afraid of, Pablo—the old gray man who can hardly walk?"

"Why, no," admitted the thief looking at M. Demetriovich.

"Or of that bean-pole boy, whose head is so weak he cannot remember the simplest thing without writing it in a book."

"Nor him either," agree Pablo with a glance at Standifer.

"Or the engineer who cannot lift a hand without gasping for

breath and choking for air?"

"Anyway," argued Pasca, half convinced, "how did those other geographers manage to kill their guide? Perhaps they shot him when he was asleep."

"They were not geographers," snapped Ruano, "at least they were not like these men."

"How do you know?"

"Could another such a party be in the mountains and all the country not hear of it? Even in prison we heard the great American scientists were going to the Rio Infiernillo. Then take these men—would they tie all these bones together if they wanted to pack them on llamas to Ayacucho? You know they would not. They would take them apart and put them in sacks until they reached America."

"Why, that's a fact," agreed Pasca, staring at the skeletons with new interest. "Certainly no llama would carry one of these things." He stared a moment longer and added: "But perhaps, these other scientists were also fools and did not think of that."

"Then, they would not have had wit enough to kill their guide. It takes some wit to kill a man, Pablo, I assure you."

Naturally the geographers had been listening to this very candid opinion of their party. Now M. Demetriovich inquired, not without a certain respect in his voice:

"*Señor* Ruano, I may be very

wrong in my judgment. How do you think those skeletons came here?"

"*Señor*, returned the convict respectfully, "this is the Rio Infiernillo. I think the devil put them here to scare men away, so they cannot look into hell while they are alive. Because if they had a look, *señor*, it would be so horrible they would change their lives, become good men and go to heaven—and so the devil would lose patronage."

Standifer, who was chagrined with Ruano's description of himself, grunted out the word "barbarous." Pethwick shouted with laughter.

With a blush Standifer drew out his notebook. As he did so, he said to Cesare:

"These entries are made, not because I lack intelligence, as you seem to think, but because I am the official secretary of this expedition; besides I am an author. I wrote a book called "Reindeer in Iceland."

A fit of coughing seized Pethwick.

"I meant nothing by what I said, *Señor* Standifer," explained Ruano, "except to hearten this rabbit. Think nothing of it." He turned to the crowd as a whole. "We will never get the mules and llamas past the skeletons, so we will have to remove the skeletons past the mules and llamas."

This plan recommended itself to

the whole party and everybody set to work. The men lugged the things past the trembling animals and finally lined them up behind the cavalcade. They placed the human frame at the head of the troop, just as they had found it.

As Pethwick rode away he looked back at it. There it stood, representing the summit of creation, the masterpiece of life. It rattled its phalanges against its femur and grinned a long-toothed grin at the vast joke of existence—an evolutionary climb of a hundred-million years, a day or two of sunshine, a night or two of sleep, a little stirring, a little looking around, and poof! back it was where it had started a hundred million years ago. No wonder skeletons grin!

On the forward journey it transpired that Cesare Ruano had obtained a sort of moral ascendancy over the whole party.

He certainly had set the whole crowd straight about the skeletons. They had talked for an hour to decide where they came from and in half a dozen words Cesare proved to them they knew nothing about the matter whatsoever.

Another thing that gave Cesare prestige was his abrupt quelling of Pasca's desertion. Without Cesare, the Zambo would have escaped. None of the scientists would have acted in time to stop his headlong flight.

Civilization has the unfortunate

effect of slowing up men's mental operations in emergencies. Indeed, civilization places such a premium on foresight that a civilized man lacks ability to live from instant to instant. The ordinary American lives usually in next month or next year, but he is rarely at home in the "now" and "here."

This quality of concentration on the future is a splendid thing for developing inventions, building great businesses, painting great pictures, writing novels and philosophies, but it works badly indeed for guarding convicts, who invariably bolt in the present tense.

Cesare used his new authority to possess himself of a rifle.

"We don't know just who shot this skeleton," he explained very simply to M. Demetriovich, "and we don't know how many more skeletons the fellow may want. I prefer to keep mine. Now I have observed that you *senores* never glance about when you travel, but look straight into your mules' ears and think of a great many things, no doubt. But this fellow could collect your skeletons very easily. So I will take a rifle and ride before and shoot whoever it is before he shoots us."

Ruano chose Standifer's rifle for this task. The secretary was glad of it, for the weapon had been chafing his leg ever since the party left Ayacucho.

The immediate declivity leading

into the Valley of the Rio Infiernillo was a field of boulders ranging in size from a man's head to a house. Far below them the tree line was marked by some small trees that had been tortured by the wind into grotesque shapes worked out by the Japanese in their dwarf trees. Here and there patches of snow disguised their precarious footing into white pitfalls.

The mules crept downward, exploring every step of the way with their little hoofs, then easing their weight forward. It made a very swaying, chafing ride. Pethwick's pommel worked against his stomach until he felt he had been sitting down a week, wrong side first.

After an endless jostle it seemed to the engineer that he was not descending in the slightest, but was being shaken back and forth, sticking in one place amid the cyclopean scenery. When he looked back, the endless boulder-field slanted toward the sky; when he looked down, it seemed as far as ever into the black and sinister valley where the river wound like an adder.

He looked to reaching the tree-line with a hope it would bring him relief from the monotony. It did not. His saddle chafed, his mule sagged and swayed. His fellow-scientists did as he was doing, squirmed about on the torturing saddle-horns. The sameness drove his mind in on itself. He

began as Cesare had said, "to stare into his mule's ears and think."

He wondered about the skeletons. He wondered what "trivial" thing Cesare had done to get sentenced to the garrote. He wondered what that shooting star and the phosphorescent mist could have been? Then he wondered about the skeletons again . . . about Cesare. . . .

A rifle-shot that sounded like a mere snap in the thin mountain air disturbed his reflections. He looked up and saw a faint wisp of vapor float out of the .30-30 in Cesare's hands. The engineer glanced anxiously to see if the murderer had shot any of his companions. They were all on their mules and all looking at each other and at him. Everyone in the crowd had felt instinctively that the desperado had fired at some person—possibly at one of his own party.

"What is it?" cried Standifer. "A man yonder!" Pablo pointed.

"I don't know whether it was a man or not!" cried Ruano, jumping from his slow mule and setting off down the declivity at a hazardous run.

"Ruano!" shouted M. Demetriovich in horror. "Did you shoot at a human being like that? Drop that rifle, you bloodthirsty fellow. Drop it!"

Extraordinary to say, Cesare did drop his gun and as it struck the

stones it fired again. The man plunged on downward at full tilt. It was an amazing flight. He took the boulders like a goat. The party stopped their mounts and sat watching the dash.

"Did you say it was a man?" asked the secretary shakily of Pablo.

"As sure as I am sitting here," At that moment the flying Ruano swung in behind a large boulder.

"He was behind that!" cried Pablo sharply. Then he lifted his voice. "Did you get him, Cesare?" he shouted. "Was there any money on him?"

But almost immediately Pethwick glimpsed the murderer again, in fact saw him twice—or he may have caught a flash of two figures, one chasing the other.

Suddenly Pablo began yelling himself as if on a fox-course.

A shock of horror went through Pethwick. He knew too well what the convict would do if he caught the man. Nobody could waylay Cesare Ruano, even to look at him, in safety.

"Here, let's get down there!" cried the engineer in urgent tones. "Lord, we ought not to have given that brute a gun!"

"Maybe he hit him!" surmised Pablo in cheerful excitement.

"He's chasing him this minute somewhere behind those boulders," declared Standifer nervously.

M. Demetriovich dismounted,
THE GREEN SPOTCHES

and from between two boulders recovered Standifer's rifle as they passed it.

Pethwick had screwed up his nerves for some dreadful sight behind the boulder, but there was nothing there. Nothing except a splotch of green liquid on the stones.

Smaller gouts of this green fluid led off down the boulder-field, making from one large boulder to another as if some dripping thing had tried to keep a covert between itself and the party of riders.

Pethwick dismounted and followed this trail perhaps a hundred yards, until it ceased. Then he stood looking about him in the cold sunshine. He could not hear the slightest sound. The blackened valley and the Infernal River lay far below him. High above him, at the end of the trail, the vultures wheeled against the sky.

Chapter III

From his headlong pursuit down the mountain-side Cesare Ruano never returned.

What became of him none of his companions ever discovered. He dropped out of their lives as suddenly and completely as if he had dissolved into thin air.

A dozen possibilities besieged their brains. Perhaps he fell over a cliff. Or was drowned in the river. Or he may have deserted the expedition. Perhaps he was

still wandering about, lost or crazed. Perhaps the man he pursued turned and killed him.

All these are pure conjectures, for they had not a clue upon which to base a rational hypothesis. The only hope for a suggestion, the green splotches on the boulders, proved to be a hopeless riddle itself.

The men picked up several of the smaller boulders and when camp was pitched Prof. Demetrovich made a chemical analysis of the stain. Its coloring matter was derived from chlorophyll. If Ruano's shot had penetrated the stomach of some running animal, it was barely possible for such a stain to have resulted—but it was improbable. This stain was free from cellular vegetal structure. In the mixture was no trace of the corpuscles or serum of blood.

On the afternoon of the second day following the incident, the men sat at the dinner table discussing the matter.

In the tent beside the rude dining table were cots and another table holding mineral and floral specimens and some insects. Two or three books were scattered on the cots and duffle-bags jammed the tent-corners.

Looking out through the flaps of their tent, the diners could see the eastern peaks and cliffs of the Infernal Valley turning orange under the sunset.

M. Demetrovich was talking.
"I consider the chlorophyll an

added proof that there is another scientific expedition in this valley."

"What is your reasoning?" inquired Pethwick.

"Chlorophyll is a substance none but a chemist could, or rather would, procure. It serves no commercial purpose. Therefore it must be used experimentally."

"Why would a chemist want to experiment in this forsaken place?"

Standifer put in a question—

"Then you think Cesare shot a hole in a canister of chlorophyll solution?"

"When a man has a choice of improbabilities, all he can do is to choose the least improbable," explained M. Demetrovich friendilly.

"I wonder what Cesare would say about it?" speculated Pethwick.

"The green trail also suggests my theory," proceeded Prof. Demetrovich. "When Ruano shot the man behind the boulder, his victim evidently did not know that his can of solution had been punctured, for he sat hidden for perhaps a minute while his container leaked a large pool just behind the rock. Then Cesare charged, the fellow fled, losing small quantities as the liquid splashed out. At last the man observed the puncture and turned the can over and there the trail ended."

M. Demetriovich pushed his coffee cup toward Pablo without interrupting his deductions.

"I should say Cesare's bullet entered the can about an inch below the level of the liquid. That would explain why a continuous trail did not mark the fugitive."

"But why would one scientist be ambushing civilized men in a heaven-forsaken place like this?" cried Standifer in slightly supercilious tones. "And why should he carry a canister of chlorophyll around with him?"

Pethwick tapped the table with his fingers.

"It's unfair to demand the fellow's occupation, race, color and previous condition of servitude," he objected. Then after a moment: "I wish we could find Ruan—"

M. Demetriovich stirred his coffee and looked into it without drinking, a Latin habit he had formed in the Rumanian cafes.

"If I may be so bold, *senores*," put in Pablo Pasca, "a scientist—a lone scientist would go crazy in a place like this."

This remark, while as improbable as the other guesses, nevertheless spread its suggestion of tragedy over the situation.

"Nobody knows the action of chlorophyll exactly," brooded M. Demetriovich. "Somehow it crystallizes the energy in sunlight. If some man had developed a method to bottle the sun's energy directly, he would probably pur-

sue his investigations in the tropics—"

"And he might desire secrecy," added Pethwick, "so much so that he would even—"

"You mean he would murder Cesare?" finished Standifer.

"A certain type of scientific mind might do that, gentlemen," agreed Demetriovich gravely.

"What sort, professor?"

"There are only a few countries in the world capable of producing a chemist who could experiment with chlorophyll and sunlight—"

The diners looked at the old scientist expectantly.

"Of these, I know only one country whose chemists would kill an Indian on the bare possibility that the Indian might divulge his secret process—or his political affiliations."

"You mean he could be a German royalist?" queried Pethwick.

"If the Germans could synthesize the sun's energy and thus transform it directly into food, they would certainly be in a position to bid again for world dominion," stated M. Demetriovich positively. "It would annul a blockade of the seas. It would render unnecessary millions of men working in the fields and put them on the battlefield."

"But that's fantastic, professor!" cried Pethwick, "That's getting outside of probability."

"The green splotches themselves are outside of probability,

Mr. Pethwick," stated the old savant gravely, "but they are here nevertheless."

"The moon is rising," observed Standifer casually.

The secretary's silly and trivial breaks into the conversation irritated Pethwick. He turned and said—

"Well, that doesn't bother me; does it you?"

"Oh, no," said Standifer, taking the rather tart remark in good faith. "I like to watch the moon rise. If I may say it, all my best literary ideas are evolved under the moonlight."

"Trot on out and see if you can't think up something good," suggested the engineer.

Standifer caught this sarcasm, flushed slightly but did get up and walk out through the tent entrance. A moment later the two men followed him, leaving the things to Pablo.

The rising moon centered their attention with the first glint of its disk between two peaks far down the valley. The last bronze of twilight lingered in the west. The men shivered with the chill of coming night.

Despite Pethwick's jibe at the poetical influence of the moon as expressed by the secretary, the engineer felt it himself.

"It looks whiter, more silvery in this latitude," he observed after a continued silence.

"That mist about it looks like the veil of a bride," mused the

author with self-approval.

"Maybe it does," said the engineer, who despised similes, "but it looks more like a mist around the moon."

"What's the matter with you, anyway, Pethwick?" snapped Standifer, wheeling around. "Just because you lack the gift of poetical expression is no reason why you should make an ass of yourself and bray every time I utter a well-turned phrase!"

"Was that what you were doing?" inquired the older man.

"It was, and if—"

Standifer broke off suddenly and stared, then in amazement gasped—

"For Heaven's sake!"

"What is it?" Both the older men followed his gaze.

Standifer was staring into the fading sky utterly bewildered.

Pethwick shook him.

"What is it?"

The secretary pointed skyward.

They followed his finger and saw against the dull west the delicate silver crescent of a new moon.

It required half an instant for the incoherence of their two observations to burst upon them. The next impulse, all three turned.

The full moon they had seen rising in the east had disappeared. The mist, a phosphorescent mist, still hung about the peaks; indeed it seemed to settle on the distant crags and cliffs and glow

faintly in the gathering darkness. It defined a sort of spectral mountain-scape. Then, before their astounded gaze, it faded into darkness.

A scratching sound caused Pethwick to shiver. It was Pablo striking a match inside the tent.

After his observation of what for want of a better name will have to be called the psuedo-moon, a curious mental apathy fell over Pethwick. Not that he failed to think of the extraordinary series of events that had befallen the expedition. He did think of them all the time. But he thought weakly, hopelessly. He picked up the problem in his brain without the slightest hope of finding the solution. He exhausted himself on the enigma, and yet he could not let it go.

He tried to forget it and center himself on his work. But little mysteries cropped out in his everyday toil. His principal duty with the expedition was map-making, the determination of the altitudes of the various observed peaks, and a mapping of the outcrops of the black micas, limonites, serpentines, pitchblendes, obsidians, and hornblendes. It was these dark-colored stones, he found, that gave the great chasm its look of incineration.

And this is what he did not understand. Here and there he found places where streams of lava sprang, apparently, out of the solid escarpment of the cliffs.

Now the whole Peruvian sierras are volcanic and these lava pockets did not surprise Pethwick. The inexplicable part was that no volcanic vent connected these little fumaroles with the interior of the mountain. They seemed to have burned from the outside. They looked as if some object of intense heat had branded the mountainside.

Ordinarily Pethwick's mind would have sprung like a terrier at such a problem; now, through sheer brain fag, he jotted the descriptions without comment. In this dull, soulless way he made the following extraordinary entry in his journal one morning:

This morning, close to one of those burned pockets, or fumaroles, which I have described, I found a roasted rabbit. The little animal was some twelve feet from the fumarole, sitting upright on its haunches and roasted. It looked as if its curiosity had been aroused, and it had been cooked instantly. As decomposition had not set in, it could not have been dead for more than a week.

I wonder if this is a tab on the date of these fumaroles? If so, they must have been burned a few days ago, instead of being of geologic antiquity, as I at first assumed. If recent, they must be of artificial origin. Since they

roast a rabbit before frightening it they must occur with the abruptness of an explosion. Can these splotches be connected with the evil mystery surrounding this expedition? I cannot say. I have no theory whatever.

That evening at dinner Pethwick showed this entry to M. Demetriovich. The old Rumanian read it, and his only comment was a nod and a brief—

"Yes, I had discovered they were of recent origin myself."

Presently he suggested a game of chess to take their minds off the matter before they retired.

"You look strained, Pethwick," the old man said.

The engineer laughed briefly.

"I am strained. I'm jumpy every minute of the day and night."

The old savant considered his friend with concern.

"Wouldn't you better get out of here for a while, Herbert?"

"What's the use? I could think of nothing else."

"You would feel out of danger."

"I don't feel in danger."

"Yes, you do—all mystery connotes danger. It suggests it to us. That is why mystery is so stimulating and fascinating."

"Do you think we are in danger?"

"I am sure the man who killed Cesare would not hesitate over us."

Standifer, who was seated at

the table began to smile in a superior manner at their fears.

Owing to the engineer's nervous condition this irritated Pethwick acutely. However, he said nothing about it, but remarked to M. Demetriovich—

"Tomorrow I am through with my work right around here."

"Then you'll take a rest, as I suggest."

"No, I'll take a pack, walk straight down this valley and find out what is making these fumaroles—and what became of Cesare."

At that moment, in the gathering blue of night, the eastern sky was lighted by the glare of the pseudo-moon. Its palor poured in through the tent flaps and the shadows of the men's legs streaked the floor.

The mystery brought both the old men to the outside. They stared at the illumination in silence. The light was as noiseless as the aurora. As they watched it Pethwick heard Standifer laughing inside the tent.

The secretary's idiocy almost snapped the engineer's control. He wanted to knock his empty head. At last the phenomenon died away and left its usual glimmer on the surrounding heights, in a few minutes that vanished and it was full night.

When the men re-entered the tent, Standifer still smiled as if he enjoyed some immunity from their mystification.

"Well, what's the joke?" asked Pethwick at last.

"The way you fellows go up in the air about this thing."

"You, I suppose, are on solid ground!" exploded Pethwick.

The author said nothing but continued his idiotic smile.

"I admit there are points here and there I don't understand," continued Pethwick after a moment. "No doubt we fail to understand it as thoroughly as you do."

"You do," agreed Standifer with such matter-of-factness the engineer was really surprised.

"What in the devil have you found out?" he asked irritably.

"Oh, the facts, the facts," said Standifer nonchalantly. "I'm a writer, you know, a trained observer; I dive to the bottom of things."

"Pethwick stared, then laughed in a chattery fashion—

"Y-Yes, I see you diving to the bottom of this—"

The old professor, who had been studying the secretary, quietly interrupted—

"What do you know, James?"

The literary light hesitated a moment, then drew a handful of glittering metal out of his pocket and plunked it down on the table.

"I know all about it," he said and grinned in spite of himself.

The men stared. Pablo Pasca paused in his journeys to and from the kitchen tent to stare at

the boy and the show of gold.

"Know all about what?" cut in Pethwick jumpily. "The gold or the mystery?"

"Both."

Suddenly Pablo cried—

"I told you, *senores*, wealth lies where danger is so great!"

"Have you found a gold mine?" asked M. Demetriovich.

"No, I sold one of my books."

"Whom to—when—where—my Lord; who was the sucker?" Pethwick's questions almost exploded out of him.

"I had no idea my book had such a reputation," beamed the author.

"Youngster, if you'll cut the literary twaddle—" quavered Pethwick on edge.

"Well, I had a hunch theremust be some very simple explanation of all this skull and cross-bone stuff you fellows were trying to pull. You know that doesn't go in *real* life. It's only fiction, that resort of the mentally muddled—"

"Standifer! Spill it—if you know anything!"

"Go on, tell it your own way," encouraged Demetriovich. "You were saying 'mentally muddled.'"

"Sure—yes, well, nothing to it, you know. This life is very simple, once you get the key."

"Lord, doesn't that sound like 'Reindeer in Iceland'!" groaned the engineer.

"What was the light we saw just then, Mr. Standifer?" in-

quired the savant, who saw that the secretary would never get anywhere unaided.

"A new sort of portable furnace, sir, that extracts and reduces ores on the spot."

"Who runs it?"

"Indians."

"Have you seen any of them?"

"Saw one not three hours ago. Sold him a copy of 'Reindeer in Iceland'!"

"Did you enquire about Cesare?" proceeded M. Demetrio-vich.

"Yes, he's working for them."

"Did you think to ask about the chlorophyll?"

"That's used in a secret process of extracting gold."

"You say the men engaged in such a method of mining are *Indians*?"

"The man I saw was an Indian."

"Did you talk to him in English, Spanish, Quicha? What language?"

The secretary hesitated.

"Well—in English, but I had to explain the language to him. I think he knew it once but had forgotten it."

"A lot of South Americans are educated in the States," observed Pethwick, who by now was listening intently.

"Tell us what happened, Mr. Standifer," requested the Rumanian.

"Well, today I was about twelve miles down the valley. I had sat down to eat my lunch when I

saw an Indian behind a rock staring at me as if his eyes would pop out of his head. I don't mind admitting it gave me a turn, after the way things have been happening around here. On second glance I thought it was Cesare. I was about to yell and ask when the fellow himself yelled at me—

"Hey, Cesare, is that you?"

"Well, it nearly bowled me over. But I got a grip on my nerves and shouted back, 'No, I'm not Cesare!' And I was about to ask who the fellow was when he took it right out of my mouth and shouted to me, 'Who are you?'

"I told him my name and address, that I was an author and secretary of the De Long Geographical Expedition; then I asked him to come out and let's have a talk.

"The fellow came out all right, walking up to me, looking hard at me. He was an ordinary Indian with a big head and had on clothes about like Cesare's. In fact, you know it is hard to tell Indians apart. As he came up he asked me the very question I had in mind—

"Do you know Cesare?"

"I said, 'Yes; where is he?'

"He stood looking at me and shook his head.

"I said, 'You don't know,' and he touched his mouth and laughed. Then I guessed that he didn't understand English very well, so I began explaining the language.

"He would point at something and say, 'Is that a bird? Is that a stone? Is that a river?' in each case he got it right, but there was always a hesitation, of about a second, perhaps, as if he were thinking like this: 'is that a—river?'"

Both the older men were staring intently at the boy as if they were trying to read something behind his words. Pethwick nodded impatiently.

"I am sure," continued Standifer, "the fellow once knew English and it was coming back to him."

"Undoubtedly," from Pethwick.

"Then he saw the corner of my book in my haversack, for I—I sometimes carry my book around to read when I'm lonely, and he said, 'What is that — 'Reindeer in Iceland'?"

"That joggled me so, I said, 'Yes, how the deuce did you know that?'

"Well, at that he almost laughed himself to death and finally he said just about what was in my mind; 'That has a wider reputation than you imagine,' and he added, 'What is it for?'

"'What is what for?' says I.

"'Reindeer in Iceland,' says he.

"'To read,' says I. 'It contains facts,' says I. 'It's not like the rotten fiction you pick up.' And with that my whole spiel that I used to put up to the farmers in

New York State when I sold my books from door to door came back to me. I thought what a lark it would be to try to sell a copy to an Indian in the Rio Infiernillo. 'If I do that,' I thought to myself, 'I'll be the star book-agent of both the Americas.' So I began:

"'It's not like the rotten fiction you buy,' says I. 'This volume gives you the truth about reindeer in Iceland; it tells you their food, their strength, their endurance, their value in all the different moneys of the world. It states where are the greatest herds. What reindeer hides are used for. How their meat, milk and cheese taste. How to prepare puddings from their blood. How the bulls fight. Their calls; their love-calls, danger-calls, hunger-calls. How their age may be calculated by the tines on their horns and the rings on their teeth and the set of their tails. In fact, sir,' said I, 'with this little volume in your pocket, it will be impossible for any man, no matter how dishonest he is, to palm off on you an old, decrepit reindeer under the specious representation that he or she is young, agile and tender.'

"'The price of this invaluable compendium puts it within easy reach of one and all. It will prove of enormous practical and educational value to each and any. It makes little difference whether you mean to rear these graceful,

docile animals or not; you need this volume, for as a means of intellectual culture it is unsurpassed. It contains facts, nothing but facts. You need it. Do you want it? Are you progressive? Its price is the only small thing about it—only fifty-four cents. Let me put you down.'

"With that, so strong is the force of habit, I whipped out an old envelope to take his order on.

"'What is fifty-four cents?" he asked, 'Have I got fifty-four cents?"

"'Just what I was wondering,' says I. 'Turn your pockets wrong-side out and I'll see.'

"He turned 'em and spilled a lot of metals on the ground. I saw these pieces of gold and told him they would do. I told him I would give him all five of my volumes, for that is the number I brought on this trip, and I'm sorry now I didn't bring more.

"He just pushed the gold over to me without blinking an eye and we traded. I told him where we were camped and he said tomorrow he would call and get the other four volumes. And, gentlemen, that is all I know."

At the end of this tale, Standifer leaned back, smiling with pleasure at his sale. The two men sat studying him. At last Pethwick asked—

"You say he knew the title of your book?"

"Yes."

"Was the title showing?"

"No, just a little corner stuck out of the knapsack."

Pethwick considered a moment. "You at first thought it was Cesare?"

"Did he have a scar on the side of his face?"

"No, I would have noticed that sure. Still his face was painted very thickly. I couldn't see any scar."

"You are sure it wasn't Cesare?"

"Absolutely sure." Here M. Demetriovich took up what might be called the cross-examination.

"You say he didn't understand English at first—could he read the book you sold him?"

"No, that was the odd part. I had to tell him what the letters were and how they made words: how words made sentences. But he caught on the moment I showed him anything and never forgot at all. I tried him."

M. Demetriovich paused:

"You are sure it was an Indian?"

"Yes."

"But he didn't know the value of gold?"

"Well, I don't know about that," began Standifer.

"Did you say he gave you all that money for five dinky little books!" stormed Pethwick.

"Yes, but that doesn't say he doesn't understand—"

"A gold-miner," interrupted M. Demetriovich, "who is so highly

scientific as to employ chlorophyll in a secret process of extracting gold and yet who—doesn't know the value of gold!"

The secretary caressed his glittering pile happily, yawned and slipped it back into his pocket.

"Anyway I wish I had a cart-load of those books down here."

Pethwick sat on his stool clutching his knee to his breast, glaring at the author. Finally he gave a nervous laugh—

"I'm glad you've cleared up the mystery, Standifer."

"So am I," returned the secretary genially. "I was getting worried about it myself."

"I shouldn't think it would worry, you. Standifer." Pethwick gave another shuddery laugh.

"I'm glad not to worry," agreed the secretary heartily.

The engineer sat moistening his dry lips with his tongue while little shivers played through him.

"By the way," he asked after a moment, "did you think to enquire about those skeletons? Is that—cleared up, too?"

"Yes, I did. He said he put them up there to keep the animals away. He said you never knew what sort of animals were about and he didn't want any in till he was ready. He said he put one of every species he could find because each animal was afraid of its own dead."

M. Demetriovich sat gazing at the boy. A grayness seemed to be gathering over the old man.

"That's a fact," he nodded. "I'd never thought of it before—each animal is afraid of its own dead. No skeleton shocks a human being except the skeleton of a man. I suppose it's true of the rest."

"Anyway, it's all cleared up now, Standifer," repeated the engineer with his chattering laugh. "It is as you say, Standifer; there are no mysteries outside of fiction."

He began laughing, shaking violently. His exclamations grew louder and wilder. M. Demetriovich jumped out of his seat, hurried over to his medicine-chest, fixed up a glass of something and with a trembling hand presented it to the engineer. Pethwick drank some and then the old man took a deep swallow himself.

"What's the matter?" asked the secretary, lifting a happy head.

"It's the reaction," shivered the engineer less violently. "You cleared up the mystery—so suddenly—Go on to sleep."

The boy dropped back to his pillow and was off instantly after his long walk.

The two older men sat staring at each other across the little table, their nerves calming somewhat under the influence of the sedative.

"Is it a lie," whispered Pethwick after long thought, "to cover the discovery of gold?"

M. Demetriovich shook his head.

"That boy hasn't enough ima-

gination to concoct a fragment of his fantastic tale. The thing happened."

"Then in God's name, what is Cesare going to do to us tomorrow?"

"Cesare would never have given away all that gold," decided the old savant slowly.

"Unless—he means to recoup it all tomorrow."

M. Demetriovich shook his head.

"Cesare might have put on the paint—he could never have thought up such an elaborate mental disguise. That is far beyond him."

The two men brooded. At last the savant hazarded:

"It may be possible that the Bolsheviks have quit using gold. I believe there is a plan to use time-checks down in their socialistic program."

The engineer jumped another speculation, "The old Incans used gold as a common metal—the old Incans—sun-worshippers, who sacrifice living men to their deity—"

The two scientists sat in silence. From the icefields high above the chasm of the Rio Infiernillo came a great sighing wind. It breathed in on them out of the blackness; its cold breath chilled their necks, their hands, their wrists: it breathed on their ankles and spread up under their trousers, chilling their knees and loins.

The men shivered violently.

Chapter IV

Pethwick awoke out of some sort of nightmare about Incan sun-worshippers. He could hear the groans of victims about to be sacrificed and even after he had shuddered awake his sense of impending calamity persisted. He lifted himself on an elbow and stared about the tent. The sun shining straight into his face, no doubt, had caused his fantasy about sun-worshippers.

He got to a sitting posture, yawning and blinking his eyes. Outside the day was perfectly still. A bird chirped querulously. In the corral he could hear the llamas snuffling. Then he heard repeated the groan that had disturbed him in his sleep. It came from the secretary's cot.

The engineer glanced across, then came fully awake. Instead of the young author, Pethwick saw an old, white-haired man lying in the cot with the back of his head showing past the blankets. The engineer stared at this thing blankly. A suspicion that Demetriovich had changed cots passed through his mind, but a glance showed him the old savant still asleep on his proper bed.

The engineer got up, stepped across and leaned over this uncanny changeling. It took him a full half-minute to recognize, in the drawn face and white hair of

the sleeper, the boy Standifer.

A shock went over the engineer. He put his hand on the author's shoulder.

"Standifer!" he shouted. "Standifer!"

As Standifer did not move, Pethwick called to the professor with an edge of horror in his voice.

The old savant sprang up nervously.

"What is it?"

"Here, look at this boy. See what has happened!"

The scientist stared from his cot, rubbed his eyes and peered.

"Is—is that Standifer?"

"Yes."

"What's happened to him?"

"I haven't the slightest idea, professor."

The scientist jabbed his feet into his slippers and came across the tent. He shook the sleeper gently at first, but gradually increased his energy till the cot squeaked and the strange white head bobbed on the pneumatic pillow.

"Standifer! Standifer!"

But the youth lay inert.

He stripped the cover and the underclothes of the young man.

Standifer lay before them naked in the cold morning air; his undeveloped physique looked bluish; then, on the groin of his right leg, Pethwick noticed an inflamed splotch that looked like a sever burn.

M. Demetriovich turned to his

medicine-chest and handed Pethwick an ammonia bottle to hold under the boy's nose while he loaded a hypodermic with strychnin solution. A moment later he discharged it into the patient's arm.

A shudder ran through Standifer at the powerful stimulant. His breathing became better and after a bit he opened his eyes. He looked drowsily at the two bending over him and after a minute whispered—

"What's the matter?"

"How do you feel?"

"Sleepy. Is it time to get up?"

"Do you ache—hurt?"

The secretary closed his eyes, evidently to take stock of his feelings.

"My head aches. My—my leg burns."

He reached down and touched the inflamed spot.

As the strychnine took firmer hold the boy became alert enough to show surprise at his own state. He eased his sore leg to the floor and sat up on the edge of the cot. Both his companions began a series of questions.

Standifer had no idea what was the matter with him. He had not bruised either his head or his leg. Nothing had happened to him through the night, that he recalled, nor on the preceding day. After a bit, he remembered the sale of his books and drew from under his pillow the gold which he had received.

A thought crossed Pethwick's mind that Pablo Pasca had crept in during the night and has assaulted the sleeper. Demetriovich took the bag and inspected it, smelled of it gingerly. Pethwick watched him with some curiosity.

"How did you bring this home yesterday afternoon, James?" queried the old man.

The secretary hought.

"In my pocket."

"In your right trousers pocket?"

"Yes."

"Put on your trousers."

The youth did so, working his sore leg carefully inside.

"Put that gold in your pocket. Does it fall directly over the burn?"

Standifer cringed and got the metal out as quickly as possible.

"I should say so."

M. Demetriovich nodded.

"And you slept with the gold under your pillow last night for safe-keeping?"

"Yes."

"Then that did it," diagnosed the scientist.

"But how can gold—"

"The stuff must be poisoned somehow. I'll see if I can find how."

The savant moved to the table containing his chemicals and test-tubes.

To Pethwick, the idea of poisoned gold sounded more like the extravagance of the Middle Ages

than a reality occurring in the twentieth century. The engineer stood beside the table and watched the professor pursue his reactions for vegetable and mineral poisons. Standifer limped to the engineer's side. In the silver bowl of an alcohol lamp the boy caught a reflection of himself. He leaned down and looked at the tiny image curiously. At length he asked:

"Pethwick, is there anything the matter with my hair?"

Then Pethwick realized that the boy did not know his hair was white. And he found, to his surprise, that he hated to tell Standifer. He continued watching the experiment as if he did not hear.

Standifer took up the lamp and by holding its bowl close he got a fair view of his head. He gave a faint gasp and looked for a mirror. At that instant Demetriovich took the only mirror on the table to condense a vapor floating out of a tube. The old man began talking quickly to the engineer:

"Pethwick, this is the cleverest destructive stroke that the Bolsheviks have ever invented."

"What is it?"

"I still don't know, but they have poisoned this gold. They could probably do the same thing to silver. It makes the circulation of money deadly. It will perhaps cause the precious metals to be discarded as media of circulation."

The engineer looked incredulous.

"It's a fact. Do you recall how the report of ground glass in candies cut down on consumption of confectionery? If a large body of men should persistently poison every metal coin that passes through its hands—who would handle coins? Why, gentlemen," he continued as the enormity of the affair grew on him, "this will upset our whole commercial system. It will demonetize gold. No wonder that scoundrel offered our secretary so much gold for a book or two. He wanted to test his wares."

The old man's hand trembled as he poured a blue liquid from one test tube to another.

"I am constrained to believe that in this Valley of the Infernal River we are confronted with the greatest malignant genius mankind has ever produced."

"Why should he want to demonetize gold?" interrupted Pethwick.

"It will force mankind to adopt a new standard of value and to use an artificial medium of exchange—'labor-hour checks,' perhaps, whose very installation will do more to socialize the world than any other single innovation."

The two friends stood watching him anxiously. "You can't find what they do it with?"

"Not a trace so far. It seems to defy analysis."

"Notice," observed Pethwick, "your electroscope is discharg-

ed completely discharged."

M. Demetriovich glanced at the gold-leaf electroscope and saw that its tissue leaves were wilted.

Suddenly Standifer interrupted:

"Pethwick, is my hair white? Did that stuff turn my hair white?" He seized the mirror. "Look! Look!" he cried out of nervous shock and a profoundly wounded vanity.

The engineer turned with genuine sympathy for the author, but in turning he saw a man standing in the entrance watching the excitement with a slight smile.

The engineer paused abruptly, staring.

The stranger was a medium-sized Indian with an abnormally developed head and a thickly painted face. He wore the usual shirt and trousers of a *cholo* and for some reason gave Pethwick a strong impression of Cesare Ruano. Why he resembled Cesare, Pethwick could not state, even after he had inspected him closely. To judge from the Indian's faintly ironic expression, he must have been observing the scientists for several minutes.

M. Demetriovich first regained his self-possession.

"Are you the man who gave my boy this gold?" he asked sharply, indicating the metal with which he was experimenting.

The painted man looked at the heap.

"I gave a boy some gold for some books," he admitted.

"Well, that's the gold all right," snapped Pethwick.

"Did you know the gold you gave him was poisoned?" proceeded the savant severely.

"Poisoned? How was it poisoned?"

"That is for you to tell us."

"I don't know in the least. What effect did it have?"

The man's tones were completely casual, without fear, regret, or chagrin. "You see for yourself what it did."

The stranger looked at Standifer in astonishment and presently ejaculated:

"Is that the same boy?"

"You see you nearly killed him," stated the scientist grimly.

"It was quite accidental; I don't understand it myself. Let me look at his trouble."

He walked over with more curiosity than regret in his manner.

Pethwick watched the fellow with a sharp and extraordinary dislike. It was so sharp that it drove out of his mind the amazing fact of finding this sort of person in such a desolate valley.

Standifer exhibited the burn. The stranger looked at it, touched a spot here and there and finally said, more with the air of an instructor lecturing his inferiors than with that of a savage talking to a civilized man:

"This is the effect of a metal which I carried with the gold. A metal—I don't know what you call it in your language—possibly

you may never have heard of it. Here is some."

He reached in his pocket and drew out a piece of silvery metal as large as a double eagle and dropped it on the table before M. Demetriovich.

The old savant glanced at the metal, then looked more carefully.

"It's radium," he said in a puzzled voice. "It's the largest piece of radium I ever saw—it's the only piece of pure metallic radium I ever saw. It—it's worth quite a fortune—and owned by an Indian!"

Here M. Demetriovich breached his invariably good manners by staring blankly at his guest.

"So you are acquainted with it?" observed the stranger with interest.

"Not in its metallic form. I have extracted its bromides myself. And I've seen radium burns before. I might have known it was a radium burn, but I never dreamed of that metal."

"But that was gold that burned me," complained Standifer.

"That's true," agreed M. Demetriovich, "but, you see, the emanations of radium have the power of settling on any object and producing all the effects of radium itself. The gentleman carried those lumps of gold in his pockets along with about two million dollars' worth of radium."

The old savant laughed briefly at the eeriness of the situation.

"The gold became charged with radium, burned your leg and whitened your hair. It also affected my electroscope."

The three men turned to the stranger, who apparently carried fortunes of various metals jingling loose in his pocket.

"Sir," began the savant, "we must apologize to you for our unjust suspicions."

"Do you mean your suspicions were incorrect?" queried the red man.

"I mean," said the old savant with dignity, for this was no way to take an apology, "that we were morally culpable in attributing to you criminal motives without waiting for conclusive evidence."

The stranger smiled at this long sentence.

"I can understand your idea without your speaking each word of it. But the idea itself is very strange." He stroked his chin and some paint rubbed off on his fingers, showing a lighter yellowish skin beneath. Then he laughed. "If you should apologize for every incorrect idea you maintain, gentlemen, I should think your lives would be one long apology."

The superciliousness, the careless disdain in this observation, accented Pethwick's antipathy to the man.

At that moment the fellow asked—

"Do all your species live in

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cloth shelters such as these?"

Standifer, who seemed more kindly disposed toward the stranger, than the others, explained that tents were temporary shelters and that houses were permanent.

The newcomer continued his smiling scrutiny of everything and at last asked:

"Can't you gentlemen ever communicate with each other without using words and sentences?"

He paused then, as if to simplify what he had said, and went on—

"Suppose you, Mr. Pethwick, desire to communicate with Mr.—" he made a gesture toward the scientist and added—"Mr. Demetriovich, would you be forced to articulate every word in the sentence?"

"How did you come to know my name?" asked the engineer, surprised. "Have we met before?"

The stranger laughed heartily. "I am sure we have not. I see you desire my name. Well, I have a number. In my country the citizens are numbered. I am sure when your own countries become densely populated, you, too, will adopt a numerical nomenclature."

"What is your number?" asked Standifer, quite astonished at this, as indeed were his companions.

"1753-12,657,109-654-3."

The secretary laughed.

"It sounds like a cross between a combination lock and a football game. Where do you come from, Mr.—Mr. Three?"

The painted man nodded down the valley casually.

"The name of my country is One, or First," he smiled. "Of course that is a very ancient and unscientific name, but notation must begin somewhere, and it usually begins at home. Now I dare say each one of you lives in a country called One—no, I see I am wrong." The he repeated in a lower tone, "America—Rumania—Peru—very pretty names but unscientific.

By this time Mr. Three's remarkable feat of calling the men's names and then calling the countries of their birth made the explorers realize that they had encountered an amazing man indeed.

"Do you read our thoughts before we speak?" cried Standifer.

Mr. Three nodded easily.

"Certainly; without that all study of the lower animals would be a mere cataloguing of actions and habits."

Pethwick wondered if the fellow meant a very delicate insult to begin talking about the study of "lower animals" so promptly when the conversation naturally turned on himself and his companions. He said nothing, but Mr. Three smiled.

But M. Demetriovich was ut-

terly charmed with the vistas of investigation the man's suggestion opened to him.

"Why, that would be wonderful, would it not!" he cried.

"Certainly, without mind-reading comparative psychology is impossible."

"We have professional mind-readers," cried M. Demetriovich with enthusiasm. "I wonder why the psychologists have never thought to have one try to read the minds—say of the higher simians!"

Mr. Three seemed to find all of this conversation funny, for he laughed again. But his words were quite serious.

"Besides, this 'mentage,' as we call mind-reading, enables one to converse with every other creature just as I am talking to you. I take your language forms right out of your own minds and use them. If the creature has no language at all, you still receive its impressions."

By this time even Pethwick, who disliked the fellow almost to the point of hatred, realized that the stranger was wonderful indeed. The engineer decided Mr. Three came from some unknown country, which, he reluctantly admitted to himself seemed to be more highly cultured than England or America. So, by accepting these facts, Pethwick, in a way, prepared himself not to be too surprised at anything.

"Do all your countrymen un-

derstand 'mentage' or mind-language?" enquired the engineer.

"It is our national mode of communication. I observe you move your hand when you talk—gestures, you call it. In One, we speak a word now and then to accent our thoughts—verbal gestures. Some of our population, who are nervous, sometimes speak several words, or even complete sentences. Often it is an affectation, unless, of course," he added politely as if to exempt his companions, "their minds are not strong enough to converse without words.

"On the other hand, a few well-placed words make speeches, and especially orations, very impressive. Still, some of our greatest orators never utter a sound. But I consider this too much repression, in fact rather an academic thing to do. What you would call a—a—a highbrow. Thank you, Mr. Standifer, for thinking me the term."

"It would be a great saving of time," mused Pethwick.

"Yes, indeed; in One, a person can present a whole thought, or a whole series of thoughts, in a single flash of the brain, if the thinker's brain is sufficiently strong. It is almost instantaneous."

Standifer smiled blissfully.

"Think of instantaneous sermons. Let's get to that place.

Pethwick and the professor did not share in Standifer's badinage but sat amazed at this being whose

name was a number. The engineer realized the futility of all the questions he could ask. Turn the idea about. Suppose Mr. Three should ask Pethwick to explain American civilization in a casual talk. It would be impossible. So it was impossible for Mr. Three to give Mr. Pethwick much idea of the land of One.

Mr. Demetriovich took up the questioning:

"Have you been using radium for a long time, Mr. Three?"

"For centuries. We are in the midst of a Radium Age. It was developed out of the Uranium Age. And that out of the Aluminum Age. All this rose out of a prehistoric Steel Age, a very heavy clumsy metal, I have heard archaeologists say."

"You don't mean your mechanical appliances are made out of radium?"

"No, radium is our source of power. It has changed our mechanics from molecular mechanics to atomic mechanics. The first men of One could utilize only molecular energy, such as steam and gasoline. With the aid of radium, we soon developed the enormous force that lies concentrated in the atom. This gives my countrymen unlimited power. It can be derived from any sort of matter because all matter is composed of atoms and our force is generated through the destruction of atoms."

All this time. Mr. Three's voice

was growing weaker and weaker until finally he said—

"You will have to excuse me from any further conversation, gentlemen; my throat is not accustomed to much talking."

He tapped it with an apologetic smile. As he did so, he glanced about and his eyes lit on the chess-board and men which Pethwick and M. Demetriovich had been using the previous evening.

"What is that?"

"A game."

"Who plays it? Ah. Mr. Demetriovich and Mr. Pethwick. I would not object to a party if you feel disposed."

"Professor and I will try a consultation game against you," suggested Pethwick, moving a stool over to the table.

"I don't understand the game but if you will just think how the pieces are moved," requested the mind-reader. "I dare say I will soon learn."

The engineer framed the demonstration in his mind and Mr. Three nodded.

"I see. It seems to be a sort of rudimentary stage of a game we call 'cube' in First. However, 'cube' is an entirely mental game, although young children are given material boards and pieces to assist them in focusing their attention.

"'Cube' has eight boards such as this, superimposed upon one another. Each board has thirty-two pieces on it. thus giving

two-hundred and fifty-six pieces in all, each player controlling one hundred and twenty-eight. All the major pieces can move up or down, forward or backward, but the pawns can only advance, or go higher. As no real boards are used, the whole play must be kept in mind. The game becomes a contest of intricacy, that is, until one player grows confused, makes an incoherent move and is checkmated. It is a very pleasant amusement for persons who have nothing more serious to think about."

"I have seen mental chess-players in America," observed Standifer, "but they use only one board. I suppose more would complicate it. I don't play myself."

The chess-players made no answer to this remark, but set up the men. Mr. Three defeated the scientists' combined skill in a game of ten moves.

As this extraordinary party was brought to a conclusion, Pablo Pasca entered the tent with breakfast on a tray. When the thief saw the guest, he almost dropped the food, but after a moment came in and placed the dishes on the table. As he did so, he looked meaningfully at Pethwick, nodded faintly and retired.

The engineer excused himself and followed the Indian. He found Pablo in the kitchen tent, shaken out of his ordinary stoicism.

"Do you know who he is, *señor?*" he asked in a low voice.

"His name is Three," said Pethwick, involuntarily guarding his own tone.

"No, I mean, do you know he is the man who murdered Cesare Ruano?" asked the thief earnestly.

The engineer nodded.

"I'd thought of that. How do you know he did?"

"How! *Dios Mio*—everything the man has on is Cesare's. Cesare's clothes! Cesare's shoes! On his finger is Cesare's ring—the ring Cesare was saving to be garroted in!"

"I thought somehow he resembled Cesare," nodded Pethwick, "and I knew it was not his face."

"*Ciertamente*, not Cesare, but his murderer," aspirated Pablo excitedly. "I saw this fellow behind this very boulder! This same fellow!"

Pethwick nodded in the sunlight, unaware that Pablo expected him to do anything. Indeed, the engineer was glad he had come out of the tent. Mr. Three's intelligence was oppressive. So now he stood breathing deeply, as if from some struggle. The cliffs, the sunshine, the river, the savor of the kitchen, almost made him doubt the existence in his tent of such a personage as Mr. Three from the Land of One. Where in heaven's name was that land? Did their flourish over behind the Andes somewhere an unknown race of extraordinary artists and scientists who called

themselves simply, the First?

And there recurred to him the fancy that if such a nation existed, it must be an offshoot of the old Incan race. Perhaps fugitives flying before the old *conquistadores* found a haven in some spot and there had built up the most advanced civilization upon the face of the earth. The thought was utterly fantastic, and yet it was the only explanation of Mr. Three sitting there in the tent.

"Well?" said Pablo interrogatively.

The engineer came out of his reverie.

"Is that all you wanted to tell me?"

"All? Isn't that enough?"

"Oh, yes."

"Aren't you going to do anything?" demanded Pablo. "He is an Indian. I thought when Indians killed any one the white men garroted them. *Qwk!* Like that!" He pinched his throat and made a disagreeable sound.

"What am I to do?" inquired Pethwick blankly.

"Blessed Virgin! Does not the law of civilization work in the Valley de Rio Infiernillo? I knock an old man on the head and barely save my neck. This *cholo* kills my good *camarada*, wears his clothes, steals the very ring Cesare meant to be garroted in. What happens to him? Why, he sits at the table with you and plays? *Ehue!* A fine justice!"

The engineer hardly knew how

to answer this. He stood looking at Pablo rather blankly. He felt sure an attempt to arrest Mr. Three would prove perilous indeed. On the other hand, Pablo's attitude demanded that Pethwick should act.

Isolated like this, Pethwick was the lone representative of the great Anglo-Saxon convention of justice. It is a strange convention that polices every clime and every tongue. Red, brown, black, white and yellow men refrain from violence because the convention says:

"Thou shalt not kill!"

Wherever a representative of the convention is placed, that law inheres in him. Men of all climes come to him and say: "Murder has been done; now what will you do?"

And he must act.

He must deal out that strange Anglo-Saxon convention called justice, or he must die in the attempt:

That is what civilization means. It is not any one man who has this power of judging and punishing; it is any civilized man. They are the knight errants of the earth. Each one must fight, sit in judgment and administer justice to the best of his ability and conscience, so help him God.

It is the most amazing hegemony on the face of the earth. Each one must fight, sit in judgment and administer justice to the best of his ability and con-

science, so help him God.

It is the most amazing hegemony on the face of the earth, when one comes to think of it—and the most universally accepted.

Now Pablo was asking Pethwick an account of his stewardship.

Certainly the engineer did not think of the problem in just those terms. He was not conscious of his cultural instincts. He thought in the rather loose American fashion, that since Pablo had put it up to him like this he would have to do something.

The Zambo began again.

"Look at what I did. I only knocked an old man on the head—"

"Pablo, get those handcuffs you and Cesare used to wear and bring 'em to the tent."

"*Si, señor,*" hissed the half-breed gratefully.

Pethwick turned back toward the tent with thorough distaste for his commission. As he entered, Mr. Three glanced up with quizzical eyes and it suddenly flashed on the engineer with a sense of embarrassment that the man from One already knew what was in his thoughts.

This was soon proved. Mr. Three nodded his head smilingly.

"Yes," he said, "Pablo is quite right. Here is the ring."

He held up a hand and displayed an old silver ring engraved in the form of a snake.

M. Demetriovich glanced up at this extraordinary monologue.

"Then you did kill Cesare Ruano?" exclaimed the engineer.

Mr. Three paused for a moment then answered:

"Yes, I did. There is no use going through a long catechism. I may also add, I knew the emanations of radium would have some effect on the boy, Standifer, but I did not know what."

The old savant stared at the man from One.

"Be careful what you say. Mr. Three. Your confession will place you in jeopardy of the law."

"Then you maintain laws in this country," observed Mr. Three. "What will be the nature of the instruction you will give me?"

"No instruction," said Pethwick; "punishment."

"A very antiquated custom. I should think anyone could see that criminals need instruction."

At that moment Pablo appeared in the entrance with the manacles.

"This is hardly the time to enter into an abstract discussion of punishment, Mr. Three," observed Pethwick brusquely. He held the manacles a moment a little self-consciously, then said, "You may consider yourself under arrest."

To Pethwick's surprise, the man from One offered no resistance, but peaceably allowed himself to be chained to the chair in which

he sat. He watched the procedure with faintly amused expression and even leaned over to observe how the anklets were adjusted to his legs.

A certain air of politeness about the Incan at last constrained Pethwick to say:

"You understand, Mr. Three, we are forced to do this—it is the law."

"And you rather dislike me anyway, do you not, Mr. Pethwick?" added Three genially.

The engineer flushed, but kept his eyes steadily on Mr. Three's.

"I dislike you, but I dislike to do this more."

After the shackling the captors stood undecidedly. So they had captured the murderer of Cesare Ruano.

"We'll have to carry him before a magistrate," pondered M. Demetriovich. "It's very annoying."

"M. Demetriovich," said Mr. Three, still smiling in his chains, "you have studied physiology?"

"Yes."

"And perhaps vivisection?"

"Certainly."

"Then why all this disturbance about killing a lower animal for scientific ends?"

The old Rumanian looked at Mr. Three steadfastly. "I cannot accept your point, Mr. Three. We are all human beings together, even if Cesare Ruano did not have the culture—"

The rather pointless proceedings were interrupted by a burst

(Continued on page 101)



THE IVY WAR

DAVID H. KELLER, M.D.

Illustrated by MOREY

It's one thing when ivy grips the steps or even the hallowed halls of academe, but when it begins reaching out for something a little larger—say the entire city of Philadelphia—the result can only be total war!

"YOU are just plain drunk, Bill!" exclaimed the genial Mayor of the town of Yeastford, to one of the habitual alcoholics of the vicinity. "Just a little too much this time, or you would not be talking such nonsense. Go home and to bed and you will feel differently about it tomorrow, and laugh at yourself when your dog comes back from his hunt."

"I am drunk!" admitted William Coonel, "but anyone would get drunk after seeing what I saw. You go down to the old swamp-hole yourself and see how your nerves are afterward. Go on, Mayor Young, and then tell me whether I am drunk or not." He staggered out of the office, leaving the Mayor smiling at his persistency.

"This job of being Mayor of a small town and friend to all the friendless is some job for an old

soldier," mused Major Young to himself. "Guess I might as well close up the office and spend the rest of the day over in New York. A few hours at the University Club will restore my cosmopolitan viewpoint of life."

Two hours later he walked into the reading-room of the Club, just in time to hear hearty gales of laughter coming from a closely clustered group of men. When the laughter ceased, he heard a determined voice.

"In spite of your laughter," it said, "I want to repeat what I said. *The next great war will be waged between the human race and some form of plantlife, rather than between different nations of humanity.*"

"You mean bally little smellers, like roses and violets?" asked a man in uniform. He was Captain Llewellen, at the present assigned to duty with the British Consul.

"That is what I mean," answered the first speaker.

Elbowing his way through the circle of amused listeners, Jerkens, free lance reporter of a dozen wars, reached the center of the crowd, and holding up his hands, demanded silence.

"I want to report that war," he cried. "What headlines I could produce! How about this for the front page?

"Five Divisions of Infantry in New Mexico Surrounded by the Cactus Enemy. One Thousand Tanks Ordered to Their Relief . . . Heavy Casualties in Maryland. Our Troops Gassed by Lily-of-the-Valley and Tuberose Enemy Battalions. Generals Orchid and Gardenia Captured. They Admit That Their Morning Glory Division Was Wiped Out by Our Labor Battalions, Armed with Hoes. Patriotic Women Forming Regiments to Fight Violets and Roses. They Will Furnish Their Own Scissors. Golden Rods Massing to Attack Hay Fever Regiments."

And then the fun started and the laughter became too much for some of the older members of the Club who demanded silence. Soon the atmosphere of the place became normal. White, the plant biologist, who had been the butt of the fun, kept on smil-

ing. But two strangers at once demanded his attention.

One handed him a card, saying, "I am Milligan, the explorer. I came across the ocean to see you."

"And I am just Mayor Young of Yeastford. I am a charter member of this Club."

"I do not know which of you I am the most pleased to meet," declared White. "Milligan has always been a hero of mine because he has gone to all the places in the world I have wanted to visit, while (and here he turned to the Mayor) if you are Major Young, of the Lost Battalion, let me tell you that when I was a boy I saw you play full-back on the Columbia team the year we defeated Pennsylvania. Ever since then you have been a hero to me." And he extended a hand to each of the men.

"Since all three of us seem to want to know each other better, suppose you take supper with me here at the Club?" proposed Major Young. "I will arrange a little room where we can be by ourselves and do all the talking we want to do. The boys were having a lot of fun at your expense, White."

"Yes, I was foolish enough to make a statement that was unusual and of course they all gave the ha-ha to me."

"And the peculiar part about it was that that statement was the very reason for my coming here

from England to talk to Mr. White," said the explorer.

"Well, let's eat and talk," exclaimed the old football player.

Later on, in the little private room, Major Young started the conversation.

"Now, Mr. Milligan," he said, "suppose you tell us just what you want to find out from this famous scientist, White. Yes, you need not object to that word famous, White. I have had a few minutes to myself and I looked you up and find that you have over twelve letters after your name and are considered the authority on plant life in America. You are as big a man in your laboratory as Milligan is in Gobi and Honduras. I looked you up also and find that you have written a dozen books about places that hardly any other civilized man has ever visited. So, here I am, just plain Charley Young, eating supper with two big men. Go ahead with your story, Milligan."

The Englishman took his cigarette and pushed its lighted end carefully against the ash tray. When he spoke it was with slow, carefully selected words, beautifully pronounced—as though he were dictating to his stenographer or addressing a gathering of scientists in London.

"In the course of my travels," he began, "I have been to a great many dead cities, great, ancient cities, that once swarmed with

life. I have spent weeks in places like Angkor in Cambodia, once the home of a million Asiatics, but so completely forgotten, that none knew of its existence till the Frenchman Mouhot stumbled upon it in his quest for Asiatic butterflies.

"And down in Honduras I have seen Mayan cities silently pass the centuries in the jungles; they thrust through the green forest the white marbled crests of their pyramidal temples. I have lived in those dead cities, places like Lubaantum and Benque Viejo. In all those places I asked myself the same questions: Why did they die? What killed them? In some places it seemed as though the inhabitants simply decided to migrate. But why?

"The more I asked myself that question, the more puzzled I was. I saw something in Cambodia, and to my surprise, I saw the same thing in Central America. It was something that I thought I was sure of but it was so fantastic, so utterly weird and impossible, that I could not trust myself to put it into words. I am not like our friend White. I do not like to be laughed at. So I kept it to myself. Then, back in dear old England, I ran across the same thing; and at the same time I heard about the great work that was being done with plants by an American named White; so, here I am."

"What was it you saw in Eng-

land?" asked the biologist.

"It happened when I went down to see my friend, Martin Conway. He had inherited a nice old house and a lot of money; so, he made up his mind to restore the place and live there. It was Allington Castle, near Maidstone. It might have been a nice place for him to live in, but the ivy made him stop. That entire estate was full of ivy, and on the Castle walls the growth was from six to ten feet thick and had branches over six inches in diameter. It spread all through the woods. It climbed up the oak trees, one hundred feet into the air, and literally suffocated them with its dense foliage.

"The stuff was growing all over the Castle, inside and out. Conway put a hundred men to work and it grew faster than they could tear it loose and cut it to pieces. They worked a month, and when they came back from a holiday, it was hard to tell just what they had done. It was discouraging, to say the least.

"Conway took me over to see a ruined Castle about seven miles from the one he inherited. This other Castle had literally been torn to bits. The ivy had grown over the masonry, sending its roots into every little crack. Then it had grown up to the top of the building, forming a thick mat over every square foot of the wall. Once it reached the top, it started to pull, and the whole building

just crumbled, overnight. When we saw it, Leybourne Castle was just a ruin, covered so completely with ivy that all anyone could see simply a large mound of green.

"And what made matters all the worse, it seemed that nothing else could live where that ivy lived. The woods around Leybourne, years before, had been filled with the most beautiful wild flowers and shrubs, but they were all gone, and the little wild things, like rabbits and birds, were all gone too. That gave me room for thought. It made me see that right in England there might be as wonderful things to look into as there were in the Gobi Desert.

"Because it was not the lack of money that made Conway stop with his plans for the restoration of Allington Castle. He had the money and the ambition, but he could not get the men to work there any more. You see, three of them had taken too much liquor, and instead of going back home at the end of the day, they slept there all night, and when morning came and the Coroner and his jury, why laboring men just did not want to work there any more, and Conway had to stop. But it made him mad and he asked me to come down and visit him. I went over the entire problem with him, and it suddenly occurred to me that perhaps something like that had happened at Angkor and down in Honduras. In other

words, the same horrible thought came to me, came back to my consciousness, no matter how hard I tried to ignore it. I am an explorer, not an expert on plants, so I came over here to America to see if White could help me solve the problem.

"Just talking about it makes me tremble. Think of that! I have, and I say it in explanation and not to boast, faced death in a dozen places and in as horrible ways as a man can face it, but when I think that there is a possibility that my suspicion is true, it makes me tremble. Look at that hand," and he held out his fingers to show them a fine tremor.

"That is all right," said Major Young, in almost a soothsaying manner— "The braver a man is, the more apt he is to feel afraid. It is not the feeling but the actions that count."

"You say that three men were killed?" asked White.

"Yes. I guess you could use that word. At least, they were dead when morning came."

"And they thought the ivy—was that the Coroner's verdict?"

"No. I do not know what he thought; of course he could not say that—not in so many words. But Conway told me how the bodies looked, and we decided to do a bit of experimenting. We drove an old cow into the woods where the ivy was the thickest and tied her to a tree. Yes, we went in while the sun was shin-

ing, and the next day, when we went back, the cow was dead—and Conway—of course he was not a physician, but he said that the cow's body looked the same as the bodies of the three dead men.

"This is all happened in a poorly settled part of England. You can drive miles without seeing a cottage, and the few people who used to live there left, and some of them in a hurry, and none of them talk very much about why they left, because they do not like to be laughed at."

"Just ivy—just common ivy?" asked White, leaning across the table, and pushing aside the plates of food. "You mean that it was just the ordinary ivy that grows as an ornament on old buildings?"

"No!" almost shouted Milligan, as he looked point blank into the eyes of the biologist. "If it had been, we would have understood. In the first place, it was big. Conway and I stumbled over branches that were over a foot in diameter, and those branches ran for miles through what had once been the woods. We never could be sure just where they started from. Every few feet the branches sent out lateral rootlets and coiling twining tendrils replaced every third leaf, but we never were sure that we found anything like a central root. We did find something, however, that made us think. All those big branches

seemed to come from one place, and we never were able to get within a mile of that place. We located it rather accurately on our map and this is what we found.

"Then years ago there was not a bit of ivy in those woods; but there was a large hole in the center of the forest. The maps called it a swamp-hole. It had always been there. Some of the old men told Conway about it. Tradition had it as the home of a large snake. Silly idea that. Now, here is what happened. I mean to say this is what I think happened. This new kind of ivy started to grow out of the swamp-hole. Where did it come from? Why, out of the hole. And in ten years' time it had captured seventy square miles of England. And here is the thing that makes me tremble. Nobody knows about it, and nobody is doing anything about it. Conway and I talked about that phase of it; and I came over here. How about it White?"

But the biologist did not have an opportunity to answer the question then, because the Mayor of Yeastford suddenly galvanized into life, as he asked "Were the leaves a peculiar combination of white and green? Did those tendrils wave around in the air? Do you think that they sucked the blood out of the cow?—and the three men? Did you find swamp-holes like that in Honduras?"

The explorer and the biologist looked at the ex-soldier in aston-

ishment. At last White asked, "What are you driving at, Major?"

"Simply this. Up in the town, where I am the Mayor, we have a hole that we call the swamp-hole. And today noon a hunter came in and told me his dog had been killed down there. But he was drunk; so, I did not credit his story. But he said he saw something like a large vine come out of the hole and strangle the dog. Now do you two men suppose that the same kind of ivy is right here in America? We have a hole there at Yeastford and something is coming out of it. You said that you never saw the center of this plant, never were able to come near the real roots of it. Here is your chance. Suppose we go upto my town and go down into that hole?"

Milligan took another drink and then started to pull up his pants to the knees, and let down his stockings.

"Look at those legs," he said. Livid scars encircled his limbs. Ugly ulcers, just healing, were scattered along the scarlet lines. Milligan smiled as he explained, "I fell down one day. Fortunately, Conway was able to stay on his feet, and he had an ax and cut me loose. I was in bed for days. I want to see your little pet vines in that hole in your old home town, Major, but I want to be very careful about how I go near them. What do you think

about it, Mr. White? Any connection between Angkor and the English ivy?"

"There may be. The reason for the sudden desertion of those dead cities has been a puzzling one to scientists. Some say it was a change of climate, others diseases, carried by insects. Terrible wars might have been at the bottom. But suppose, just for the sake of argument, that near each large city there was a swamp-hole and out of this hole came some antediluvian form of plant life? Let us further suppose that this plant life was carnivorous. Fear might have then led to the desertion of the cities and violent, unreasonable panic depopulated them.

"Thousands of centuries ago life on this world was bizarre, weird and utterly terrible. Everything grew big. Earth worms twenty feet long and bats with a wingspread of sixty feet. Ferns grew into trees, two hundred feet high. Animals grew a hundred feet from snout to tail. Then everything changed; and the big things died and gave place to little things and at present man, the King of the Earth, is a little soft thing under six feet tall. But the dreamers have told us their suspicion that in the out-places of the earth, under the ocean or in unexplored caverns, the giants of antiquity lie, silently sleeping, waiting for the time to come when they can once again rule as

Lords of the Earth. Perhaps in these centuries of waiting they have developed characteristics that we have not even considered as possibilities. For example. *Can plants think? Can they plan and act according to any plan?* If they can, and I think I can show you something very much like it in my plant laboratory, then what is to keep some form of plant life from deliberately making war on the human race? I made that statement in the reading-room today and they laughed at me. And I did not know then about Milligan and his legs. I think that we had better go with Major Young to Yeastford and see what he has to show us, and then—I want to go with Milligan back to England—unless things start over here."

Milligan, the iron man, the dauntless explorer of the waste places of the earth, looked at the biologist as though fascinated by his remarks. He had often faced danger, but it seemed as though he dreaded to face this thought. Yet, he forced himself to speak.

"That is what I thought," he said, "when I studied those dead cities. Something drove those people out. It came slowly, not like killing waves of animals or migratory invasions of savage tribes. It came slowly and the people deserted, while they still had time, and left the cities to the vegetable kingdom. Now a few monkeys sport furtively on the

temple roofs of Angkor and a few parrots scream in Lubaantum, but they are afraid to venture too close or too near the ground. And the natives are afraid; they say the places are populated with demons, but in reality they will not be honest with you and tell you just what it is that they are afraid of. I feel that this threat from the ground drove those busy millions into an enforced exile, and it was so terrible, so horrible in its menacing frightfulness, that instinctively they decided to forget it, to blot the whole episode from the mental pictures of the history of their race.

"That is what I had in mind. And I could not tell anyone, because I was sure he would laugh at me. Then I saw a starting of it in England, and here in America I met a man who believed it possible and another man who says that he knows a place where a swamp-hole is just beginning to belch forth its gruesome cargo. Suppose we go to Yeastford and study that hole? Perhaps then we will be able to see what can be done."

"And it will have to be done secretly and fast, because if it attacks our cities as it did in ages past or as it has that little part of England, then our civilization is doomed," cried White.

"Bosh!" cried the Major. "Bosh and fiddle-faddle! Nothing can destroy us. We are too great, too powerful, too resourceful and

too developed intellectually."

The Yeastford Real Estate Company had known about the Swamp-Hole when they bought the large area of land over in South Yeastford. They had been forced to buy the hole in order to secure the rest of the land. They knew when they bought it that they would never be able to sell it. It would never return a dollar of their investment to them; so they simply charged up that acreage to profit and loss and added a little extra to the price of each building lot they sold.

The town grew around the hole. A National Highway passed one side of it, a railroad another side, and two streets the remaining sides. Thus, the hole was surrounded on three sides by cement streets and on the remaining side by the tracks of the D.L. and W.R.R. A busy, happy and prosperous neighborhood of substantial folks lived there and passed the hole daily. They had become so accustomed to its being there that hardly any of them realized its presence.

From the stout fence that surrounded it on all sides the land fell rapidly down to a circular center. The pitch was so steep that it was difficult to descent to the bottom. And there was nothing there when the bottom was reached except a mud hole, ice in winter, dry in summer and a muddy pond after every hard rain. Trees grew on the steep sides,

ferns and moss covered the ground, a few pond lilies tried to live in the stagnant water, their only visitors the myriad mosquitoes, their only friends the little frogs who sat shyly on the lily pads.

Birds flirted in the tree tops and gorged themselves in the fall on the wild grapes, while below a few rabbits and squirrels claimed ownership of the nuts that fell from the walnut and hickory-nut trees. Occasionally a dog would dash through the underbrush and in the fall a few hunters tried to kill the rabbits that had the temerity to live so close to civilization. That was the Swamp-Hole of South Yeastford.

The three men arrived at Yeastford about forty-eight hours after the hunter had lost his dog. They had decided that it would be best to keep the real reason for their triple visit a secret. So the Major simply told his housekeeper, that he had two political friends visiting him, and asked the inquisitive reporter to say nothing about the fact that the Mayor was entertaining company. Fortunately, the next day was dismally drizzling, making it possible for the three to reach the hole unobserved, climb over the fence and slide down the steep embankment without anyone's being the wiser.

In a few minutes, aided by the force of gravitation, they reached the mud hole at the bottom. Sure

enough, there was the new growth of ivy and on one side was the dead fox-hound. He attracted as much attention as the ivy. The Major poked him with a stick and then gave his verdict.

"Dead as a doornail and dry as a piece of old leather."

"Looks like leather and bones to me," observed White.

"All the blood sucked out of him," whispered Milligan. "See those long white tendrils? They have suckers on them just like those on the arms of an octopus. They just wrapped around the poor cur and sucked him dry. See those branches move! I do not know whether you have noticed it, but since we have been standing here there has been a marked movement over in our direction. I worked on that point with rabbits for a while and the long tendrils seemed to be able to either see or feel or smell flesh. Let me show you. That is why I brought over this pole and the pound of liver. We will tie the liver to the pole and do some experimenting. Suppose we go around on the other side. Those long white arms are too close to me for comfort. There," and he held the liver high in the air over a part of the plant, "we will see how it acts."

The did not have to wait long. The plant slowly lifted its stems into the air and surely, with almost an uncanny, human preci-

sion, sent its tentacles towards the piece of liver suspended in the air. As the meat on the end of the pole was moved, the vine moved, following it. And at last, moving with a swiftness that surpassed the agility of the human arms holding the pole; the vine wrapped around the piece of meat and drew it down into the middle of the leaves.

"The leaves themselves," commented White, "are remarkably like the ordinary ivy except that they are white in spots. Were it not for those long tendrils, I would think that it was nothing exceptional. Of course, the fact that it eats meat is not unusual for the vegetable world—lots of plants eat meat."

"As far as I can tell," interrupted Milligan, "this is just the same kind of ivy we saw in England. At least it looks the same to me; the thing that frightened us was the largeness of it and the thought of where it was coming from and what would happen if it did not stop coming. Of course, over there we saw miles and miles of stems, while here there seem to be just a few yards."

"It must have just started here," explained the Major. "Just started. Fortunately, we found it in time. We must think of some way of stopping it—killing it—driving it back into the hole."

The three men made a queer spectacle as they stood there in the mist, talking about a dan-

ger that no one else in America realized. They were terribly in earnest, profoundly impressed with the immensity of the problem; and as they talked, the ivy grew towards them, especially Mayor Young, and silently sent a thin tendril up his trouser leg and wrapped around the ankle. He turned to go and fell, tripped by the vine. Other tendrils came toward him. White and Milligan pulled at him, took out their pocket knives and started to hack through the restraining bands. It seemed as though others came faster than they could be destroyed. At last the Major was free and the three men started to run up the hill as fast as they could.

And as fast as they went up the hill the ivy came after them. "Hell!" gasped White, shivering as he turned around for a minute. "It is up with us, and it's not growing. No plant could grow as fast as that! It is coming out of the hole. Hurry! HURRY!!"

He paused on a flat spot, seized a large stone and hurled it down the hill. The rock bounded into the air, was caught in flight by a dozen tendrils, played with in the air and then tossed aside as though inventoried as useless. And a minute later the three men reached the fence, climbed awkwardly over it and stood breathless on the cement walk. Major Young uncovered his legs and looked at them. They were bleeding from fifty small wounds.

Even as he bent over, a hand tapped his shoulder.

"You three men are under arrest for trespass," said the policeman. "Can't you see that there is a '*No Hunting*' sign on that tree?"

Mayor Young stood erect and eyed the man coolly.

"I should think you would know me, Thomas?" he barked.

"Certainly he knows you," interrupted another man, none other than Hiram Jones, President of the Yeastford Real Estate Company. "Certainly he knows you, and so do I. You thought you were clever at that last election. You have tried for years to make a fool out of me, and now I am going to make one out of you. You three men are arrested for trespass. Tell your stories to the Magistrate. Go ahead, Thomas. I will make the necessary charges against them."

"But my dear man," expostulated Milligan, "you don't know—"

"Don't 'dear man' me," shouted Jones. "You talk like an English actor. I'll teach the three of you to hunt on my land!"

"It was the ivy we were after," explained White.

"It's something you ought to know about," added Milligan.

"If you do not believe me, look at my legs," pleaded the Major.

"The three of you are drunk. That is another charge, Thomas. Drunk, disorderly and trespass.

Run in all of those culprits."

That night the three men sat comfortably in the bachelor home of the Major. Their experiences had been decidedly unpleasant. All the political enemies of the Mayor had delighted in his arrest, and while it had resulted in nothing more serious than a fine, which he paid at once for the three of them, still, it was a humiliation which rankled the spirit of the proud ex-soldier. Besides, his legs hurt. There must have been a poison in the tendrils which was infecting the minute wounds. He sullenly bit on the end of the cigar that he was smoking. The other two watched him closely. At last he threw the butt into the ash tray and growled.

"That stuff is growing fast. By morning it will fill the whole damn hole. Perhaps by tomorrow it will start to cross the fence."

"Are we just going to sit here and do nothing?" asked White.

"The people ought to be warned of their danger. When it gets into the road, the little children playing there—you know what might happen to the little children. And after all, Major Young, you are the Mayor of the town. You owe something to your office."

The Mayor of Yeastford looked sharply at the Englishman.

"What do you think I ought to do?" he asked.

"Let's wait till morning," urged

White. "Then we can go and see just what the situation is. I guess they won't arrest us for just walking on the street or the sidewalk."

That is what they did; just waited till morning. All during the night the plant came out of the hole and all during the night it climbed up the hill and up on the trees and it grew, as well as crawled. The morning came, bright and free from the fog of yestermorn. The men, after a leisurely breakfast, walked towards the swamp-hole. Even from a distance they could easily see that there was a change in it. The trees looked larger and greener, and as they neared the hole they saw that it was not a hole any more; there was a large hill of green ivy with a few dead trees sticking their bare branches through the white and green leaves, and the whole mass was moving with a sickening undulation that made the three observers shudder.

They were not the only ones watching the hole. Thomas, the policeman, was there, and Hiram Jones and half a dozen others, and as many women, who were holding their children tightly by the hands. One of the women was talking in a shrill tone to Jones, and holding her three-year old child in her arms.

"It's dangerous!" she screamed. "You own that land, and you ought to do something. I tell you

it was dragging my child down there when I heard the scream and ran and pulled her loose. I was peeling potatoes and, luck would have it, I carried the knife with me. You going to let that weed grow there and kill our children?"

"Bosh!" sneered Hiram Jones. "It is just ivy. Started to grow there and the swamp-hole was so rich it grew fast. Just ivy, I am telling you. I am going to make cuttings of it and sell it for ten cents a cutting. Lots of folks will buy a fast-growing vine like that for ten cents. I'll show you what I think of it. Bah! I'll walk through it."

He jumped over the fence and started down the hill. Mayor Young called to him to stop, to come back, but he kept on. That is, he kept on for a little while, and then he turned around and started to scream. It was a shrill, animal cry, and before it was ended the ivy was over him, barring him from the onlookers except for a few undulating movements. Another scream, and then silence.

The ivy started in a hundred places to cross the road. The folks of South Yeastford shrank back from it. Women grabbed their children and ran trembling to their nearby homes, shutting the doors and locking them. Thomas walked over to the Mayor.

"What does it mean, Major?" he asked. There was no doubt about the fact that he was bother-

ed. "Should I get some of the boys and go in after him?"

"Better not, Thomas. He is going to stay there and so will anyone else who goes in there."

"But it is just a plant, ain't it?"

"Yes, it is just a plant," the Mayor replied, rather absently. "Just a plant. I think they call it ivy, Thomas. You go around and tell all the women to keep their children indoors. Mr. White and Mr. Milligan, suppose we go back to my home and talk this over. I am sure that we can do no good by standing here and watching that damn thing grow. At the rate it is going it will be across the roads by noon, and then—well—we will either have to stop it or make the people get out of their homes."

In an hour the Courthouse bell called the men of the town to a mass meeting. The bell was used only during Court week or in case of fire. Naturally the men of the town were curious. The Mayor lost no time in telling them the reason back of the meeting. He talked to them right from the shoulder; there was no mincing of words.

"The men of this town had better get axes and knives and hatchets and start fighting," he ended. "Otherwise, the people in South Yeastford will be driven from their homes in a few days. And they had better leave if the ivy comes near them. I am going

to leave this in the hands of the Councilmen, and I and my guests are going to see the Governor."

Of course, there was endless talk. Everyone knew that the Mayor had been fined the day before for disorderly conduct. Perhaps he was still drunk. Still, most of the men who attended the meeting left it to walk over to South Yeastford. What they saw there was not especially assuring. The ivy was now over the road and starting to grow over the lawns on the other side. An automobile had been driven over that street, but it had been caught by the ivy, and the man driving it had barely escaped with his life. It did not take the curious spectators long to realize that they had to start in and get busy. They did so, but without discipline or order, each man for himself and in any way and place that he wanted to. They worked all the rest of that day, and then, rather satisfied with clearing the street, they went to their homes for the night.

The next morning the ivy had recrossed the street and was curling around some of the houses. By that time the State Constabulary, under orders from the Governor, arrived and took charge of the work. It was rumored that several regiments of State Militia had been ordered out. Eager newspaper reporters began to interrogate the town people. Thomas, the policeman, was in his glory. He was especially clever in describing

how Hiram Smith had yelled as the ivy dragged him under.

It is an interesting fact that the Governor gave one hundred percent credit to the story told him by the three visitors from Yeastford. Major Young, White and Milligan had been able to show him that a very real danger existed in his state of Pennsylvania. He promised the Mayor all the help that the state machinery could afford. He even offered to come to Yeastford himself, as soon as he could do so. After the conference, he gave a long interview to the newspapers, in which he spoke much about himself and little about his three visitors. One would judge, from reading the article, that the Governor had been the first one to discover the ivy and to recognize its danger.

On the fifth day regiments of National Guards and over a thousand citizens were actively fighting the growing ivy. The men were working in relays. The work was being performed in an orderly and systematic manner. With the greatest difficulty, the roads were kept clear and the ivy was confined to the swamp-hole.

The fight to keep the ivy inside the fence was apparently a fairly easy one. Every night the ivy grew, and every day the branches that went over the fence were cut off. Of course, it took till nearly dark to finish the day's work, but when darkness came

the road and sidewalks were cleared of the vegetating threat. There were some casualties, but the offensive powers of the plant seemed to be considerably diminished by the multiple traumas that it was suffering. It looked like an easy victory. Even Milligan, with his superior knowledge, was hopeful of success. On the second day White had returned to New York for further study of the plant in his laboratory. He did not return till the sixth day of the fight.

On the train from New York he thought over the situation. As the train neared the Water Gap he went out on the rear platform. The Gap was passed and then the pulp-mill and the track began to parallel Broadhead's Creek. There, above the power dam, he saw something that made him turn white. He was still swearing when he jumped off the train at East Yeastford. Milligan, who had received the wire announcing his return, was astonished to see the usually placid biologist so upset.

"Milligan, what have those fools been doing?"

"What do you mean?"

"They have been cutting off that ivy. What did they do with the pieces?"

"They must have carted them away. I know. They took them in carts and dumped them into the creek. Some they took up on Fox Hill."

"They were fools and so were we. They should have been warned. Fire! That was what was needed! Fire! Perhaps it is too late now. Every piece that had an aerial rootlet and had a chance has started to grow. Broadhead's Creek is full of it. It is starting to run up into the mountains around the Gap. Unless we act at once we are lost."

"But I do not understand," cried Milligan. "I thought it all came from a central plant of some kind, a variety of plant animal that lived in the hole. Don't the pieces die when cut off, as my fingers would if they were amputated?"

"No! That is going to be the trouble of it for this country. I have been working with it. Even the smallest piece, if it can obtain water, will start growing and make a new 'animal.' I wish I could escape from the word 'animal,' but I cannot. The 'thing' seems to have everything that we have in the way of vital systems, and I think that it has some kind of a mind. It can think. All that it has lacked so far is mobility. It seems to be attached to a central root and it just moves forward and grows as it moves, but the main body stays in the hole. That was the impression I obtained from what you told me, Milligan, and even in England, where no one fought it took a long time for it to cover just a small area. Here is a differ-

ent story. We have been helping it, We threw hundreds of pieces into the water and that watercarried it down for miles. Perhaps some branches are drifting to Philadelphia at this minute. I am sure the whole Gap area is infested."

After that, fire was added to the weapons used. It seemed to work for a while, at least around South Yeastford. But in the woods of the Water Gap it was a different story. There the forests were filled with small summer cottages and large hotels. There was a great investment. Fire in the woods meant burning buildings. The hotel owners started legal proceedings. There were injunctions and counter-injunctions. It all meant delay.

Even at that time America was not air-minded. Had she been, the use of bombing airplanes would have been thought of at once. As it was, over two weeks passed before it occurred to anyone to try the extermination of the central plant-animal by bombing from the air.

Once thought of, everyone wondered why it had not been used the first day. Ton after ton of T.N.T. were dropped into the Swamp-Hole. The town of Yeastford was shaken by the explosions. Windows were shattered. When the attack ended, the hole was just a mass of pulverized rock and shattered trees. There was nothing green left. The vic-

tory was so easy that the authorities wondered at their fright of the past weeks.

Yeastford seemed safe. If the Water Gap was in trouble, it was their own fault. The Governor of the State turned the matter over to a special committee and started to build his fences for the next election. Up on the barren mountains of the Gap the ivy seemed to lose its terror. People simply learned to stay away from it.

Meanwhile it was growing in the Delaware river. In this period of the war the attacking animal showed its diabolic cleverness. Of course, it was a thousand separate animals under the river, but each one, originating from the same parent stem seemed to partake of the original nervous system, and one of the remarkable points in the entire Ivy War—for so it was to be termed in the histories of the future—was the ability of all the plants to work in perfect synchronized harmony with each other.

The plants grew down the river. Biologists later on stated that the original home was in deep subterranean lakes, where it lived the part of an aquatic animal. It certainly showed its ability to live under the waters of the Delaware. It gave no evidence of its existence. Not a leaf appeared above the surface of the water. It simply stretched its long branches southward along the

bed of the river, and as those branches grew into long submarine cables, they grew thicker until many of them were over a foot in diameter and looked like large water snakes, as their whitish brown sides appeared through the boiling waters of the occasional rapids.

The branches grew down the river till Philadelphia was reached. Once more the combined intelligence of the plant-animal showed itself in not making an immediate attack. With flame, dynamite and ax, regiments of men were fighting the menace on the slopes of the mountains around the Delaware Water Gap. But no one thought of searching the been difficult, almost impossible to exterminate a mass of tangled roots stretching for miles along the river front and thirty feet deep in the channel mud. Meantime the stranger was growing, gathering strength, preparing for the conquest of the city.

In spite of the many conjectures and surmises, no one ever determined positively whether the ivy had a language or some method of communicating with its various parts. One thing is certain and that is the fact that during the whole war it showed the intelligence of a thinking unit of life. For example, instead of concentrating its forces on a small town, it deliberately passed Portland, Easton, Trenton, and waited till it reached one of the great

cities of the East, Philadelphia. Once there, it did not send a single attacking branch to the east side of the river, to Camden, but put all its energy into the conquest of the larger city.

The time that it selected for the attack was opportune. It was a night in early spring, cold and damp with fog. No one was out on the street, save from necessity. The street lights gloomed like sullen stars overhead. The wet streets and the moist air served as a blanket to deaden every sound. Then, at midnight, when every watchman was hunting the warmth and dryness of shelter, the plant sprang forward to the attack. One plant, perhaps, but with a thousand parts; one animal, it might easily be, but with a thousand arms; one intellect, but with a thousand deadly attributes.

Up Market, Walnut, Arch and many streets running west from the river the plant advanced to the attack. It was silent in its growth, murderous in its desires. Watchman after watchman died with the horrid coil around his neck, giving, through a hundred punctuate wounds, his life fluid to feed the plant and passing out of consciousness without the least idea of what was killing him. Into the cellars, the bootlegger's joints, the cheap boarding and rooming houses, the laterals spread and collected therein their harvest of death.

And as the "animal" tasted more and more blood it worked faster, gathering its harvest of death. It worked faster and even more silently. The city east of Broad Street was surrendering to the enemy without even knowing that there had been a battle waged. Aerial rootlets fastened to the stone buildings, and up these buildings the terminals grew, searching for their prey through every open window, every unlocked door.

Morning came, a lovely spring morning. Before the kisses of the sunbeams the mist melted in gentle resignation. The city awoke, feeling that it was good to be alive, and not till then, when the first living people started to invade the district east of Broad Street, did the city and the nation realize what had happened during the silent watches of the night.

Those in that portion of the city who had escaped death during the dark hours gayly walked out into the street without the least intimation that anything was wrong, and once there, died quickly. And whether they died quietly or with screams made no difference to the "Animal" that closed around them and sucked out their fluids.

Even in the daylight it took the forces of Philadelphia some time to realize what had happened and what was happening to them. It was not till nine

in the morning that the scientists suddenly appreciated the fact that the ivy of Yeastford, the plant that was still being fought on the mountains of the Water Gap had in some peculiar way reached Philadelphia and was taking the city by storm.

It was something greater than the business of a city or the affairs of a state. This was something that menaced the life of the nation. If an unsuccessful fight were made against the plant in Philadelphia, what was to hinder it from attacking other cities? Wilmington? Baltimore? and even Washington?

The defense was slow in starting because it could see, at first, nothing but the advanced portion of the enemy. It was plain to be seen that Market, Chestnut, Arch and Walnut Streets were slowly filling with a mass of green leaves, but it was not until daring aviators had made an aerial survey of the situation that the defenders realized the important fact that the attack had been inaugurated from the river. Later on, when ship after ship had been surrounded, pulled down into the river mud and everyone of the crew killed, the real significance of this became apparent.

The ivy grew upward as well as onward. Front Street, within twenty-four hours, was a mass of green embowered houses, and some of the older ones were al-

ready beginning to be pulled to pieces.

The Governor of the State heard the news and he recalled the three men from Yeastford. He lost no time in trying to get in touch with them over the long-distance telephone. Here more time was lost. The Mayor had gone to New York for a rest. White was working in his laboratory, trying to find some method of fighting the ivy. Milligan had strangely disappeared. Unable to locate any of the three, the Governor was momentarily at a loss as to what to do next. In despair he sent the entire National Guard of the State to Philadelphia, under the command of the Adjutant General of the State, while he went to State College to talk matters over with the Dean of the Agricultural Department. To his surprise he found that gentleman had left for New York. Not till later did he realize that the Dean had gone to White for help as soon as he had heard of the trouble, realizing that White, of all men, was the one most likely to be of real assistance.

The first day and the next the same tactics were employed in fighting the ivy; that is, that had been used in South Yeastford. The effort was made to keep it east of Broad Street. The terminal branches were cut off as they tried to cross the dead line. As company after company of the guards derailed they were marched to the fighting line and put

on sentry duty. No one was allowed to even try to enter the doomed area. Death, by this time omnipresent, kept anyone from leaving. As though satisfied with its day's work the ivy stopped going westward, and seemed satisfied to solidify its position in the east of the city.

It had captured the subways, putting an end to all travel there. The defense had an idea that it was working silently through the sewers of the city, but the danger was so new, the problem so intense that no one had the courage to speak openly about what *might be going on under the city*. The end of the second day came, with Broad Street clear and a strange battle going on between the military and financial forces of the city. The air forces were anxious to drop depth-bombs into the Delaware River, to try and blow the enemy to bits at its headquarters. They wanted to throw T.N.T. into the great green masses on Market and Arch Streets. They were anxious to start a war to the death. And the money interests, the financiers who had their millions invested in real estate and stores of precious goods east of Broad Street protested. They appealed to the Governor, they cried to the President, they even sent messages to the Allwise demanding less harsh measures.

Meanwhile, the ivy rested. At least, it seemed to rest.

What it really did was to send a hundred roots up the Schuylkill River and on the third night invade the city from the west. The dawn broke with every bridge, every railroad track covered with ivy and evidences of having been rather rapidly pulled to pieces. The Pennsylvania, the B. and O., the Reading were all forced to suspend operation. The city could no longer be fed.

Conferences began. Interviews were given. Great personalities ventured asinine opinions. Every Tom, Dick and Harry, who was able to do so, rushed into print. There were a thousand remedies offered, none of which could be of any possible use. The Red Cross, the Regular Army, the Grand Old Party and the Amalgamated Labor Unions each started in to do their bit. But everybody was working in a different way to accomplish the same thing, and no one was quite sure of just what he really wanted to do.

Meantime the plant was growing, the "animal" was becoming more powerful. It was gradually gathering in its forces on every side of the city. The citizens started to leave; there was little suffering, and after the first day, there were practically no deaths, but the President's advisers realized that a panic would start just as soon as the city dwellers knew the possibility of their being entirely surrounded. So, they si-

lently encouraged the depopulation of the city.

At last the national danger was so plainly seen, that orders were given to bomb the rivers and the city east of Broad Street. That order would have been carried out had not White arrived in Philadelphia and asked for a delay. He made a peculiar figure before the important personages gathered at Army Headquarters in City Hall. He was rather cheaply dressed, was without a hat and carried a Boston bag in one hand a gallon demijohn in the other. It took a good deal of introducing to make the Generals realize that the man before them was the leading expert in plant physiology in the Western Hemisphere.

"Ever since this ivy war started in the swamp-hole in South Yeastford," he began, "I have been trying to devise some scientific method of fighting it. I have felt the uselessness, the utter hopelessness of making a frontal attack on it in force. We were able in Monroe County to cut it to pieces, but each little piece simply started in to make a new plant with all the devilish brains of the mother 'animal.'

"I started to study this peculiar form of ivy. I found that it had a nervous system and through this nervous system it controlled its various parts. But, most important of all, was the discovery that it had a circulation that was rather like that of the fetal car-

diovascular system. It actually pumps fluid from one end of its body to the other.

"Before I arrived at this conclusion, the scientists who studied plants were at a loss to explain the movement of sap in the larger forms of vegetative life. Atmospheric pressure would only raise the sap thirty-four feet the height of the water-barometer. Osmotic pressure might play a part, but it is so slow that in the giant *Eucalyptus Amygdalina* it would take a year of osmotic pressure to take sap to the top, four hundred and fifty feet above the ground. Nothing explained this movement of sap till I found in this ivy a propulsive tissue very much like the heart muscle.

"Once I found that, I realized that the ivy had a circulation in two directions. Much of the time I have been wondering whether I was working with an animal or with a plant, but that does not make any difference, because I have found the thing to kill it with."

"Well, what is it?" yelled an irritated General.

"Simply this," and White held up the gallon demijohn. "This is the stuff that will do the work. But I ought to tell you that I think this ivy is more of an animal than it is a plant. At least its sap has cells in it, different from our red corpuscles, yet, at the same time, a little like them.

When I found that out I started to make a haemolytic toxin, something that would have the same effect on the sap of the ivy that poison of the cobra serpent has on the blood of man. It was not very easy, but I found it, and for the last three days Milligan and I have been over in Wolf Hollow north of the Gap, experimenting with it. And I tell you one thing: it kills the ivy and it kills it quickly. Inject it into this blood stream at the terminal end of the animal and it travels back through the animal-plant like fire and literally kills as it travels.

"You give me a company of soldiers to help me and Milligan and I will liberate this city in a few days, and then I am going to advise the President to start a war of extermination against every ivy in this country, no matter how harmless and innocent it may seem."

One of the Generals turned to another.

"Is it worth trying?" he asked.
"I think so," was the reply.
"We will wait twenty-four hours and at the end of that time if there are no results, we will start the bombing planes."

Half an hour later a peculiar event was taking place at Broad and Market Streets, on the northwest corner of Wanamaker's store. A company of soldiers had isolated a branch of the ivy, had cut off the tendrils and had pulled

it out till it lay like a writhing snake, its end almost touching City Hall. It twisted and pulled and squirmed and almost got away from the hundred men holding it fast. Sitting on it was White, with Milligan helping him fill a 25 c.c. glass septic hypodermic syringe. At last it was filled and the three-inch hollow needle was plunged into the bark of the ivy, the toxin being slowly injected into the circulatory vessels. Instantly the leafless branch dropped to the pavement. Back of its attachment to the store the green leaves were turning brown, the waving tendrils, seeking in everlasting motion their human food, dropped uncoiled and lifeless. A thick swarth of green ceased moving and hung dead on the side of the great emporium.

Walking a hundred feet across Market, White picked out another branch for attack. The same procedure brought the same results. Ten doses were given and then twenty. The aviators reported that long streaks of brown were appearing among the green and that these streaks were going back to the river. White asked for a few physiologists, whom he could train to give the injections. The men whom he wanted appeared as though by magic. Milligan directed the work while White went back to New York for a larger supply of the haemolytic poison.

Now that a means of defense was assured and a definite program arrived at, everybody worked in harmony. System grew out of chaos. Hope took the place of gloom. The nation, interested at last, financed the rest of the war. White was made a General, Milligan was decorated, and Major Young, promoted to a Colonelcy, was placed in charge of the Monroe County portion of the battle.

The war ended with the same rapidity with which it had begun. From the first the living organisms must have realized the hopelessness of the struggle, because they made a definite and orderly retreat. Tearing off their branches, they withdrew to their place of security in the rivers, and even there, realizing that they would be hunted for with grappling hooks, fled hastily to the ocean.

The nation, aroused to the peril, conducted a systematic campaign of extermination. The Delaware River, from the Gap to the Capes, was thoroughly dredged, and

whenever a branch was found it was given its dose of death dealing fluid. And not till the army of science was satisfied that there was no more enemy, did the conflict stop.

Colonel Young went back to Yeastford. He had no trouble in being elected Mayor for the seventh term. The morning after election he was in his office receiving the congratulations of his friends. In walked William Coonel, as usual, slightly splificated. The Colonel recalled the previous visit of the inebriated worthy.

"Well, Bill," he said kindly. "Sit down and have a cigar. It was a great war while it lasted, but we won out at last, and the ivy is no more."

"Yes, I guess the war is over, Colonel," replied the hunter, "but, after all, the fact that we won ain't going to bring me back my rabbit hound. He was a great dog, Colonel, too good a dog to be eat up by a good-for-nothing plant."

The End

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(Continued from page 77)

of snorting and braying from the corral. Pethwick hurried outside, for the pack animals were really of more importance than the prisoner. The engineer got out just in time to see Pablo go at full speed toward the enclosure. The Indian had a repeating rifle and no doubt feared the attack of a puma or jaguar.

On Pethwick's heels came both M. Demetriovich and the white-haired secretary. The valley was strewn with boulders big and little and the men had difficulty in running over broken ground. From afar off Pethwick saw that the down-river side of the corral had been knocked down, and all the llamas and mules came storming out, flying down toward the camp as if the fiends pursued them.

Pablo fired his rifle in the air in an effort to turn them. As he did so, the Zambo reeled as if he had received a mighty but invisible blow. Mules and llamas plunged straight past their staggering master and for a moment Pethwick was afraid they would run him down.

Next moment the engineer heard the secretary and the professor shouting at the top of their voices. He looked around and saw the comb of his tent on fire.

Thought of his prisoner likely to burn up, sent Pethwick sprinting breathless toward the tent. As the flames rushed over the oiled canvas Pethwick jerked up the

ground-pins of the rear wall and shoved under.

Mr. Three still sat in the chair with arms and legs bound to the posts. He slumped queerly. His hat dropped down on his shirt. Half suffocated, the engineer grabbed up chair, manacles, man and all and rushed into the open.

Once outside, he dropped his burden and began to slap at the fire on his own clothes. The other men began to put out the fire on Mr. Three's garments. At their strokes the garments collapsed.

Inside Cesare Ruano's clothes was an empty human skin cut off at the neck. M. Demetriovich drew it out of the burning rags. It had a cicatrice across its breast from nipple to nipple. It had bullet wounds in legs and buttocks. It tallied exactly with the police description of the marks on the skin of Cesare Ruano.

With colorless faces the men stood studying the ghastly relic of the murderer in the brilliant sunshine.

The pack-animals were just disappearing down the river valley. A few remaining shreds of cloth burned where their tent once stood. About them the sinister landscape lay empty.

Chapter V

Prof. Demetriovich held up the gruesome relic.

"Gentlemen," he stated in his matter-of-fact voice, "some-

body—something has been stalking us masked in this."

"But why masked?" Standifer's voice was tinged with horror.

"He was stalking us in a human skin, exactly as a hunter stalks a deer in a deer robe," returned M. Demetriovich.

"Then wasn't he a human being?" gasped the secretary.

"It certainly was the devil," gasped Pablo Pasca with a putty face. "The prefect told us not to come here."

"He knows he is a human being," accented Pethwick, irritably, "but he doubts if we are. Did you notice his manner? Did you observe the supercilious, egotistical, conceited air of everything he did or said? He put us down as Darwin's connecting link. We are animals to him. He puts on one of our skins to hunt us down. Otherwise, he was afraid we would go scampering off from him like rabbits."

"Then he is a fool if he thought men are animals," declared Pablo angrily.

"Well, he's not exactly a fool either," admitted Pethwick either," admitted Pethwick grudgingly, "but every single thing he said was a knock at us. I never heard—" The engineer's angry voice trailed off into angry silence.

The party stood puzzling over the extraordinary tactics of the man from One. As they buffeted the problem in their brains, a rab-

bit dashed almost under their feet bound down the valley. They paid no attention to it.

"I'll give you my guess," offered Pethwick. "I still believe we have encountered one of the ancient Incans. In Prescott's account of them, you notice the highest arts of civilization mingled with the grossest barbarities. A custom of wearing an enemy's skin may have grown up among them, just as our North American Indians used to take scalps. No doubt this fellow was spying on our number. I expect him to return soon with a band and attempt our capture."

"What a curious fate for the DeLong Geographical Expedition," mused the white-haired young secretary.

"Still," objected M. Demetriovich, "it might be a Bolshevik method of spreading terror."

"So, professor, you don't believe after all he put on Cesare's skin to stalk us?" queried Standifer.

"James, I don't know what to think," admitted the savant.

"The whole thing fits in better with my Incan theory," pressed the engineer. "The half-civilized Indians around here, like Pablo and Cesare, could very easily be afraid of some highly developed branch of the Incans, especially if the Incans were seeking victims to sacrifice to the sun. Under such circumstances it might be necessary to slip on the

hide of a half-breed to get near the others."

"It would also explain why that man ambushed our party when we entered the valley," added the secretary.

"Thanks, Standifer, for helping me out," said Pethwick. "It would also show why the peons around here call this the Rio Infiernillo and give it such a wide berth."

M. Demetriovich pulled his chin.

"Your theory seems to hang together right now," he admitted. "If you are on the right track, we will have a marvel to report—if we ever get back."

"Then, too," went on Pethwick, encouraged, "since the prefect warned us against the valley, it suggests to me there has been something sinister here for years—long before Bolshevism became a power."

"These are queer theories," laughed Standifer, "one going to the extremely ancient and the other to the extremely modern."

During the latter part of this discussion, an atok, a sort of huge native rodent, slithered down the valley past the scientists, dodging from one boulder to another. Now a Peruvian fox whisked past.

The unusual animals passing within a few minutes proved sufficient to draw Pethwick's attention from the subject under discussion. The engineer looked up the stony stretch and a surprising

sight filled his eyes with awe.

The whole valley worked with glimpses of flying animals. Rats, hares, civets, what not, darted here and there from covert to covert. Along the edge of the river slunk a panther, making cat-like rushes between hiding-places. The shrill whistle of three frightened deer sounded down the valley.

It seemed as if a wave of fear were depopulating the whole Rio Infiernillo. All the engineer could see was innumerable furtive dodgings. From the dull surface of the river arose a loon, screaming, and it boomed down stream with fear-struck speed. Only one animal fled in the open, a huge black bear with a white muzzle, the ucumari. He was king of the Andes, as the grizzly reigns in the Rockies. He lunged down the middle of the canon, taking the whole Infernal Valley for his course. He was afraid of nothing in the Sierras—except what was behind him.

The scientists hurried out from in front of the brute and let him lunge by unchallenged. They stared up the burnt valley, marvelling at this exodus of animals.

Presently, far away against the blackish stones, Pethwick descried what seemed to be yellow fleas hopping among the boulders.

"That must be what made our pack-animals break loose!" cried the engineer.

"Wonder what they are?" from the author.

"I say it's the devil making a drive," answered Pablo, crossing himself with fervor.

The animals kept darting past. The distant fleas grew into bugs, then into some sort of animals and at last were defined against the charnel gulch as human beings.

"Jumping Jehosaphat!" cried Standifer. "They are those Incans you were talking about, Pethwick. Scores of 'em! They've come for us!"

The secretary stepped around behind a large boulder that hid everything except his head.

Others of the expedition followed suit, hardly knowing what to believe.

The approaching party were yellow men. Each one carried something in his hand that flashed like metal. They leaped from boulder to boulder in their chase with amazing activity. The very vicunas themselves that skittered along the craggy sides of the valley did not exhibit a greater agility.

Pablo Pasca, notwithstanding his belief that all this was a great drive of the devil, nevertheless became excited at the passing game. As one speckled deer came shimmering down through the diamond like sunshine, Pablo determined to beat Satan out of one carcass, so he leveled his rifle for a shot. The

author saw it and put his fingers to the ears to dull the report.

At that moment a voice quite close to the party broke the silence with:

"Don't shoot. There must be no holes in the skins."

The word "skins" brought the party around with a start. They were nervous on the topic. The secretary, however, still stood with his fingers in his ears, watching deer.

On top of a large boulder, still wearing his look of condescension and amusement, sat the recent prisoner of the expedition, Mr. Three. Since he had flung off Cesare's clothes and skin, the weird creature was without apparel and sat naked in the cold vivid sunshine, his body of a clear yellowish complexion and his large head still painted a coppery red.

It was the most grotesque combination Pethwick could have imagined, but Mr. Three maintained a perfect composure, dignity—and condescension. His painted face had the faintly amused expression of a man watching the antics of, say, some pet goats.

The fellow's body suggested to Pethwick a ripe pear or yellow peach. His hands and feet were disagreeably small—sure sign of ancient and aristocratic blood. He must have slipped right through the manacles the moment his captors turned their backs. In one hand he held a small metallic rod.

Pethwick stared at the remarkable transformation and finally blurted out:

"Did you break loose from the handcuffs and set fire to our tent?"

"The fire was quite accidental," assured the man from One. "I did it with this focusing-rod when I got rid of your quaint old manacles."

"Focusing-rod," caught up Standifer, for, notwithstanding all he had suffered at the hands of the remarkable Mr. Three, the pride of a flattered author and the remarkable sale of his books left him with a kindly feeling in his heart for the fellow.

"Yes, focusing-rod."

"What does it focus?"

"Wireless power."

"We have transmission of wireless power in America," observed the Professor, "but that is certainly the most compact terminal I ever saw."

Mr. Three glanced at the rod in his hand.

"Oh, yes, this is one of the primitive instruments. I fancy this came into use among thinking creatures along with fire, the keystone of the arch and the old-fashioned seventy-two-mile gun. They were important additions to human knowledge, but their discoverers and the dates of their discovery are lost in prehistoric eras."

For a moment Mr. Three sat

The Green Sploches pensively in the sunshine, his mind dwelling on that misty time in the land of One when some unrecorded genius found out how to focus wireless power with a little metal rod. No doubt to this mysterious man the principle of the rod appeared so simple that any rational creature would know it.

Presently he came out of his reverie and waved his focusing bar down the valley.

"You men," he directed, "will follow the rest of the quarry down the river—everything must go!"

For a moment the scientists stared at him, not understanding.

"What is it?" inquired Standifer.

"Follow the quarry down the valley and be quick about it," snapped the yellow man brusquely.

An indignant flush swept over Pethwick.

"You must be crazy, Three. We'll do as we please."

"Why should we go?" inquired Demetriovich with his academic suavity.

Mr. Three tapped impatiently with his rod on the boulder.

"So our commander can select specimens to carry to One," he explained briefly.

"Oh, I see," cried Pethwick, somewhat mollified. "He wants us to help him select the animals, as we are naturalists."

For once in their intercourse, Mr. Three showed genuine surprise. He sprang to his feet and

stared at them wide-eyed.

"You help him select! You!" The gnome broke into the most insulting laughter. "You bunch of idiots, he is going to select one of you as a specimen to carry to One!" Here he threw off his brief tolerance of opposition and shouted. "Forward, march! I don't want to have to use force!"

For a moment the men stood almost paralyzed with amazement. Mr. Three evidently read the mental state, for he put a hand over his mouth to conceal his grin and to maintain his air of grim authority.

Pethwick first organized active resistance. Pablo Pasca still stood with his rifle at ready. Pethwick whispered sharply to the Indian: "Get him!"

Almost by reflex action, the Zambo swung his rifle on Mr. Three and fired.

At the same moment Pablo staggered backward as if he had received a powerful blow out of the air. His rifle clattered to the stones. At the same instant Pethwick felt a sensation like a strong electric shock. Standifer grunted and clapped a hand to his already wounded leg.

At this act of war the party of scientists threw themselves flat behind boulders. Pethwick adjusted his rifle with his hands shaking from his shock and then peered around his shelter for a glimpse of Mr. Three. He saw the

yellow man still standing on the boulder. The engineer eased his rifle around unsteadily. The muzzle of the gun wavered about the big painted head. With a determined effort the engineer settled it on his target. He was just squeezing the trigger when a spasm went through his arms, legs and body, stiffening them, flashing fire in his brain, beating him with a thousand prickly hammers. It was an electric shock. He flattened under it, squirming and twisting.

The moment his thought of opposition vanished in pain the shock ceased.

All four men lay motionless. The only sound Pethwick could hear was an occasional groan from Standifer and the faint patter of passing animals.

A ray of sardonic amusement fluttered through the engineer's dizzy brain—the DeLong Geographical Expedition captured as a curious species of lower animals.

Sudden hearty laughter from the nearby boulder told the engineer that Mr. Three had caught the jest and was enjoying it. Pethwick flushed angrily.

After this convincing contest with the focusing rod the expedition surrendered themselves as prisoners of war, or perhaps it would be more accurate to say prisoners of science.

Although Pablo had shot at Mr. Three, the strange being regarded

it no more than if a cat had scratched at him. Instead of being angry, he really tried to comfort the men. He told them only one of their number would be taken as a specimen to the land of One; the person chosen would be retained alive and, if he proved tractable, he would undoubtedly be allowed to run at large within certain limits and might be taught simple tricks wherewith to amuse the visitors at the zoo; such as playing a simple game of chess on one board.

This may or may not have been a sarcastic fling at the feeble game of chess which Pethwick had just played; at any rate the thought of playing endless games of chess through the bars of a zoological cage filled the engineer with nausea. No doubt on one side of him would be a monkey begging for peanuts and on the other a surly orang. For Pethwick did not doubt the specimen selected would be classed among the simians.

As they walked along the engineer thought up a new line of defense. He began to threaten Mr. Three with the American Army and Navy. He told the yellow man this expedition was American and their capture would be no small affair. They were a famous scientific body. They would be missed. Their abduction would mean a war between the land of One and the whole League of Nations.

At this Mr. Three interrupted
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with incredulous contempt:

"Do you creatures really compose a scientific body?"

Pethwick was so cut by the remark that he stopped talking and walked along in silence.

The professor plied his captor with many questions. He discovered that the men from One had a portable furnace and were extracting radium from the outcrop of pitchblende in the valley. The mysterious burned places which Pethwick had noted in his journal were spots where the furnace had been operated. The strange lights which the expedition had seen on several occasions were the men moving the furnace from one place to another. Mr. Three explained that they always moved the furnace at night; it was difficult to do this during the day because the sun's rays created an etheric storm.

The yellow man's conversation entertained the white men notwithstanding their uncertain fate. Pablo Pasca, however, trembled on the verge of collapse. He knew he was in the hands of the imps of Satan. Now and then Pethwick heard him groan.

"Oh, Mother of Heaven! Oh, if I could get back to the garrote! Poor Cesare Ruano, in torment without his skin—or the ring he meant to be garroted in!"

Animals still rushed past the party and behind them came the yellow beaters, scaring up the game.

It was useless for anything to hide from these terrible men with their focusing-rods. Evidently they could sense an animal's fright and locate it as an ordinary man can locate a sound. As soon as they found something in a covert, a light electric shock sent it headlong after the other animals.

For the first time in his life Pethwick felt some kinship for the lower animals. He, too, was in the *battu*, one with the foxes and rabbits that fluttered past him. For ages man had slaughtered the lower animals exactly as the men from One were doing now.

And just as man had annihilated the bison, the apteryx, the dodo, so no doubt this new and more powerful race from One would exterminate man and his cities, his works of art and his sciences. The vision of a charnel world painted itself on his depressed imagination—a wiping out or existing races and a repeopling by these yellow Incans. Compared to such a conflict the late world war would be trivial.

Amid the day-dream of Armageddon, the engineer heard M. Demetriovich ejaculate to himself:

"So it is a German Bolshevik undertaking after all. There's a Zeppelin. It required a second glance to observe this fact, as the huge creation stood on its end instead of lying horizontal as do the ordinary flying-ships.

Instead of being made of cloth, this Zeppelin has a skin of white metal, no doubt aluminum. Indeed, for the first time a dirigible had been constructed that had the staunchness and air-worthiness that deserved the name "ship". This was no mere bubble of varnished cloth.

It was enormous. It rose some seven hundred and fifty feet high, an amazing skyscraper of silver whose fulgor was enhanced by the dark and melancholy background of the Infernal Valley.

The immense vessel rested on its stern which tapered down to perhaps four feet in diameter. It was shored up with long metal rods anchored in the earth. The rods, some hundred feet long, were inserted in the airship just where its great barrel began to taper to its stern.

Five hundred feet up the side of the cylinder Pethwick noticed the controlling planes, which looked exceedingly small for the vast bulk they were designed to pilot. When the engineer pointed these out to the professor, M. Demetriovich seemed surprised.

"Do you realize, Pethwick, what their small size indicates? The speed of this ship through the air must be prodigious if these tiny controls grip the air with sufficient leverage to direct this monster."

Then the old scientist went on to commend the novel idea of landing the dirigible on her stern.

It did away with wide maneuvering to gain altitude. This aluminum dirigible could drop into a hole slightly larger than her own diameter and launch herself out of it straight at the sky. It was an admirable stroke.

Workmen dotted the vessel's side, scrubbing the bright skin as assiduously as a crew painting a man-of-war. Pethwick could distinguish this scrubbing force up for two or three hundred feet. Beyond that he caught only glimmers of moving dots amid the reflections of the sun.

The organization of the crew seemed cast along military lines. Small squads of men or soldiers marched in exact ranks and files over the valley to gather up the animals stunned by the focusing rods.

At first Pethwick had not observed these animals, but a more careful look showed him a number of specimens that had been struck down as they passed the ship. The big-headed yellow men were collecting these in cages, evidently for exhibition purposes when they returned to the extraordinary land from which they came. The slaughter had not been wasteful. Only one member of each species had been taken.

The yellow men worked at top speed and were plainly under the continual barked orders of soldiery, but oddly enough not a sound was heard. The whole control was mental. The silence gave

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Pethwick the strange impression that he was looking at a gigantic cinema.

A movement behind the white men caused them to look around. A file of yellow soldiers was moving toward the dirigible, coming from the direction of their burned camp up the valley. These men bore the mounted skeletons which the DeLong Geographical Expedition had observed when they first entered the strange valley of the Rio Infiernillo.

The removal of these objects suggested to Pethwick that the men from One and their super-dirigible would soon sail from the valley. A great curiosity to see the departure seized the engineer. He looked for the big driving propellers, which he thought must draw the ship, but he could see none.

At that moment four soldiers with a large metal cage approached the DeLong Geographical party. At the same time on one of the upper rounds of the airship, some seventy-five feet above the base, appeared a yellow man with a peculiar scintillating star fixed to his big yellow head. The personage looked directly toward the explorers but said nothing.

When he looked Mr. Three drew himself up and saluted in military fashion.

Then, evidently for the benefit of his captors, Mr. Three answered aloud the mental ques-

tions which his superior must have put to him. Here are the words of the one-sided conversation:

"Yes, sir."

"No, sir."

"Ordinary ruby-blooded mammals, sir, with intelligence somewhat higher than monkeys, sir.

"They communicate their simple thoughts exactly as monkeys do, sir—by chattering.

"They are absolutely insensible to all mental vibrations, sir, more completely so than the four-legged animals.

"I would suggest you take all five. They will prove very amusing, sir, in the national zoo. Their attempts to deceive each other and to deceive even me, sir, are as good as a farce. I believe you will find them much more humorous than chimpanzees or the ordinary monkeys, sir.

"Sorry you can't. In that case I suggest we take the brown one. His color is the nearest human. Then, too, he has the best physique. None of them have any minds to speak of.

"Very well, sir."

Here Mr. Three saluted stiffly and directed the four workmen with the cage toward Pablo Pasca.

As the laborers lowered their cage and started for the half-breed Pablo's eyes almost started from his head. He whirled to run, but seemed to realize the hopelessness of trying to escape from the amazing agility of the men

from One. Next moment he whipped out a knife and dashed into the midst of his assailants, slashing and stabbing like one possessed.

But the soldiers of One had feline agility. They dodged, whipped under his blows like game-cocks. One leaped straight over the heads of his comrades and landed headlong on the Zambo. It was an unfortunate leap. Pablo's blade caught him in the shoulder and a dark liquid spurted out.

In the instant of withdrawing the blade, the yellow men seized the half-breed's arms and legs. They went down with the Zambo in a struggling pile. Pablo kicked, bit, twisted his knife with a wrist movement, trying to cut something. But the yellow men worked swiftly and methodically.

"Quick!" commanded Mr. Three. "We must start in four minutes!" Then in answer to some question the yellow soldiers thought to him, "I can't use my focusing-rod. It might destroy what little mind he has."

A moment later the yellow men got to their feet with the ex-thief hanging between them by his legs and arms. The poor fellow turned an agonized face to Pethwick.

"*Senor! Senor!*" he screamed. "Save me! Save poor Pablo! Oh, Holy Mary! Sacred Mother! *Senor, Senor* Pethwick!"

His voice rose to a screech.

Blood trickled from his nostrils. His face was white with fear.

Pethwick stared with wide eyes at the struggle. The injustice of this capture for scientific purposes thundered at the American's heart. At Pablo's shriek of despair something seemed to snap in Pethwick's head. He hesitated a second, then lunged into the victorious yellow men.

He never reached them. A wave of flame seemed to lap around him. Then came blackness.

When Pethwick revived, there were no more yellow men in sight. The great shining dirigible stood entirely closed and apparently lifeless. The sun was setting and its rays filled the great charnel valley with a bloody light. The dirigible looked like an enormous red water-stand. In a few minutes the lower half of the great ship was purple in shadow, while the upper half turned a deeper red. The silence was absolute. The three white men stood staring at the strange scene.

Quite suddenly from where the stern of the Zeppelin nested on the ground broke out a light of insufferable brilliance. A luminous gas seemed to boil out in whirls of furious brightness. It spread everywhere, and in its radiance the great ship stood out in brilliant silver from stern to stern.

In that fulgor Pethwick saw the restraining rods cast off, and the dirigible from the land of One

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mounted straight into the green heart of the evening sky.

The moment it struck full sunlight at a height of five hundred yards it seemed caught in some tremendously strong wind, for it moved eastward with a velocity that increased by prodigious bounds. Within half a minute its light was reduced from the terrific glare of a furnace to the glow of a headlight, and then to a radiance like that of a shooting star against the darkening eastern sky.

As the watchers followed it with their eyes a strange thing happened. That white light turned to violet, then indigo blue, green, yellow, orange and red, and so faded out.

In the Valle de Rio Infiernillo lingered a phosphorescent mist that told of the first men's passing. It settled on the cliffs and crags and glowed with spectral luminosity. The men looked at each other; they too were covered with this shining stuff.

"Gentlemen," quavered M. Demetriovich, "I believe we have on us the residual emanations of radium. It will likely kill us. Let us go down to the river and wash it off."

The three men set out, stumbling through the darkness, guided somewhat by the faint light given off by their own bodies.

They waded into the black waters of the Infernal River, and

began scrubbing each other furiously, trying to rid themselves of this dangerous luminosity. High above them it still shivered from cliff and crag. Presently this faded out and there reigned complete darkness and complete silence.

On the following morning, when the DeLong Geographical Expedition was about to start back for civilization they saw on the scene of the conflict between Pablo and the yellow soldiers, where the half-breed had stabbed his captors, a number of dark green stains.

On analysis this green also proved to be chlorophyll.

A communication from Gilbert DeLong, President of the DeLong Geographical Society, to the Trustees of the Nobel Prize Foundation, Stockholm, Sweden:

Sirs: It is my privilege to bring to your attention the extraordinary journal of the DeLong Geographical Expedition into that unmapped region of Peru, in the department of Ayacucho, known as the Valle de Rio Infiernillo.

Enclosed with this journal is M. Demetriovich's able presentation of the theory that the dirigible observed in that valley was operated by the Bolshevik government of either Austria or Russia.

Also enclosed is the monograph of Mr. Herbert M. Pethwick, C.E.,

who presents a most interesting speculation tending to prove that the strange aircraft was a development made independently of the known civilized world by an offshoot of the ancient Incan race, depatriated by the Spaniards in 1553 A.D.

To my mind, both of these hypotheses, although brilliantly maintained, fail to take into consideration two highly significant facts which are set forth, but not greatly stressed in the record of the expedition as kept by Mr. James B. Standifer, Sec.

These two facts are, first, the serial number which served as a name of the man from One, and the other fact, that in both cases where a man from One was wounded he bled what for want of a better term must be called chlorophyllaceous blood.

From few other writers than Mr. Standifer would I accept so bizarre a statement of fact, but his power of exact and minute observation is so well attested by his well-known work, "Reindeer in Iceland," that I dare not question his strict adherence to truth.

The phenomena set forth in the journal happened. That is beyond cavil. The problem for the scientific world is their interpretation.

In handling this problem, I shall not only assume that the journal is accurate, but I shall still further assume that the being known in the record as Mr. Three told the precise truth in every statement

ascribed to him by witnesses.

I have every confidence in Mr. Three's probity for several reasons. First, he has no motive for prevarication. Second, a man who habitually communicates with his fellows by telepathy would not be accustomed to falsehood, since falsehood is physically impossible when a man's mind lies before his companions like an open book. Third, to a man habitually accustomed to truth, lying is a difficult and uncongenial labor. In brief, lying is like any other art; it requires practice to do it well.

In regard to the serial number, both of the above mentioned writers apparently fail to see the enormous problem it possesses. As for the chlorophyllaceous blood, our authors pass it with a vague surmise that somehow it is used in extracting gold, when the whole object of the expedition, according to Mr. Three, was not gold but radium.

Because my esteemed colleagues neglected these two critical points, their whole theories, as ably and ingeniously defended as they are, to my mind collapse into mere brilliant sophisms.

In the brief analysis herewith presented I shall touch on a number of points, among which the questions evoked by the serial number and the chlorophyll blood will be noticed in their proper places.

First, then, Mr. Three himself states that the object of the ex-

pedition was the extraction of radium from the pitchblende in the Infernal Valley. The use the men from One made of this radium was demonstrated at the departure of the dirigible, for that vessel must have been propelled by the emanations of radium. According to the description of Mr. Standifer, the ship used no screw propellers or tractors, but a powerful emanation of radium from under its stern shot the great metal cylinder upward exactly as powder propels a skyrocket.

That radium would possess such power is well known. It has been calculated that two pounds of radium would possess sufficient force to swing the earth out of its orbit.

With such power the airship would be capable of enormous speed. A high speed was guessed by M. Demetriovich when he observed the small controlling plane. However, the vastness of this speed was demonstrated by Mr. Standifer in the last paragraph of his account, by his curious observation that the airship, as seen against the evening sky, turned violet, indigo blue, green, yellow, orange, red and then was lost. In other words, it ran through the whole spectrum from the most rapid to the lowest vibrations per second and then vanished.

What is the meaning of this significant detail?

Allow me to recall an analogy in sound. The tone of a bell on a train departing at high speed becomes lower in pitch. This is because the vibrations reach the ear at longer intervals.

Apply that to the change of light observed on the airship. Then the vessel must have been withdrawing at such a speed that it lowered the "pitch" of light vibrations from white to red and finally cancelled its light in blackness.

The only conclusion to be drawn from this is that at the time of the light's extinction, the mysterious metal cylinder was hurtling through space at the speed of light itself; that is to say, at a speed of one hundred and eighty-six thousand miles per second.

Observe that I say, "space," not air. In the first place such a speed in air would fuse any metal. But there is another and a better reason.

It requires the average human eye one-twentieth of a second to perceive a color change. If Mr. Standifer had observed these color changes at the highest possible nerve rate, the operation would have acquired seven-twentieths of a second. Let us assume it required half a second. During that interval the cylinder would have traversed, at the speed of light, ninety-three thousand miles in a straight line. That is more than eleven times the diameter of this globe. Therefore it is

far outside of our atmosphere. Also it proves the mysterious vessel was not bound for Austria or Russia. It was leaving the earth.

How was this velocity attained?

I submit by the reaction of radium upon sunlight.

As every schoolboy knows, the drift of a comet's tail is caused by the pressure of light. As soon as this airship arose to the height of about five hundred yards into sunlight, it began to drift eastward with a rapidly increasing velocity. In other words, the metal skin of the ship, which Mr. Pethwick took for aluminum, was probably a much lighter metal—a metal so light that it was capable of being buffeted along in the surf of sunlight. Now if the ship were propelled merely on the barbs of sunbeams, it would have attained the velocity of light. But the velocity of radium emanations is one-fifteenth that of light. So by running down the light current, and allowing the radium to react against the sunbeams, a speed of one and one-fifteenth the velocity of light may be generated; that is one-hundred and ninety-eight thousand miles per second.

Such speed would admit of interplanetary travel.

However, it is probable the men from One could accelerate the radiation from radium by electrical or chemical means. They may have learned to boil the metal as men boil water. In such case

the pressure of its radiation would be vastly increased, and with it the possible speed of the ship. This gives an unknown and problematical power of transition far beyond the velocity of light. At such rate a journey even to one of the fixed stars would be within the realm of possibility.

We may therefore with prudence hypothesize that the mysterious ether ship observed in the Valley of the Rio Infiernillo was an interstellar voyager stopping by the earth as a coaling port to refuel with radium.

However, as it is improbable that the ether ship was going beyond the confines of our solar system, a speculation as to what planet the men from One were bound may be reached by noting the day and the hour the ship sailed from the earth.

As our earth swings around the ecliptic, it would be possible for interplanetary mariners to obtain a favorable current of sunlight in any direction. No doubt the navigator of the ether ship was bound for one of the planets in opposition to the sun at the time of the ship's departure. That is to say the yellow men were sailing for either Neptune or Jupiter.

That the men were returning to some planet much larger than the earth is suggested by their small size and extraordinary agility. No doubt these men found the gravitation of the earth slight compared with the attraction to which

they were accustomed. This fact gave them extraordinary vigor.

Now let us consider the serial number that formed Mr. Three's name. It was 1753-12,657.109-654-3.

This gives rise to a most interesting speculation:

The probable number of the units contained in a series, when any serial number is given, is computed by multiplying together the component parts of the serial number.

For instance, if one has two series of twelve each, the whole number of objects would be twenty-four. If one had six major series of two subseries of twelve each, the total number of units would be 144.

Applying this idea to Mr. Three's serial number, one would find the total probable population of Jupiter, or the land of One, by multiplying the component parts of this number together. This reached the enormous number product of 14,510,894,489,356. That is to say, fourteen and a half quadrillions.

This utterly quashes the Incan hypothesis. There is not room in South America for fourteen and a half quadrillion people—there is not room on the globe for such a number. That, in fact, is the probable population of either Neptune or Jupiter. For sake of simplicity, we will assume it must be Jupiter.

No wonder, then, with such an inconceivable population, the inhabitants of Jupiter are militar-

ized. No wonder they suggested Bolshevism to M. Demetriovich.

With such masses of life, all other species of animals are probably extinct. This would explain why the Jovians were so eager to capture specimens of fauna as well as radium.

The last point in the record, the chlorophyllaceous blood, has been to me the most difficult to find any analogy for in our terrestrial experience.

However, we must needs grasp the problem firmly and proceed with considered but ample steps toward any conclusion to which it leads.

Chlorophyll is the coloring matter in plants. It possesses the power of utilizing energy directly from unlight. There is no reason to doubt that in the veins of the Jovians it still retains that peculiar power.

With such an extraordinary fluid in his veins, it might be possible for a Jovian to stand in the sunshine and to obtain from it energy and strength, just as a human being obtains energy and strength by eating vegetables that have stood in the sunshine.

In fact, the first method is no more amazing than the second. If, indeed, there be a difference, undoubtedly our human method is the more fantastic. The idea of obtaining energy from sunshine, not by standing in it, as any one would suppose, but by eating something else that has stood in it, is grotesque to the verge of

madness.

Let us pursue that thought. No doubt in a concourse of fourteen and a half quadrillion inhabitants space would be so dear that there would be no vacant or tillable land. Therefore on Jupiter every man must absorb whatever sunshine he received. There would be no such thing as eating.

This accounts for the amazement of Mr. Three at seeing Standifer eat his lunch.

To put the same idea in another form—the crew of the ether ship were flora, not fauna.

This accounts for the yellow pear-like texture of their skins. No doubt the young Jovians are green in color. It would also explain why Mr. Three was entirely without anger when attacked and without pity for Pablo's pleadings, or for Standifer when he was burned, or for Ruano when he was murdered.

Anger, pity, love and hatred are the emotional traits of the mammalia. They have been developed through epochs of maternal protection. It is not developed in plants.

Mr. Three was a plant.

It would also explain why Mr. Three took only one animal of each species, instead of a male and a female. Sex is perhaps unknown on Jupiter. Mr. Three was perhaps expecting his animals to bud or sprout.

The last question to be broached is, How is it possible for plant life to possess mobility?

I wish to recall to the inquirer that here on our own globe the spores of the algae and other plants of that order have the power of swimming freely in the sea. Still, they are plants — plants just as mobile as fishes. They become stationary only at a later stage of their development.

Now, if for some reason these algae spores could retain their mobility, the result would be a walking, swimming or crawling plant.

The line between animal and plant life has never been so clearly drawn. It seems mere fortuity that the first forebear of animal life swam about and caught its sustenance by enveloping it in its gelatinous droplet, rather than by adhering to a reef and drawing its energy directly from the sun.

If that far-off protozoa had clung to the reef, the reader of this paragraph might have been a sycamore or a tamarind — he would not have been a man.

Now Mr. Three's forefather evidently crawled out of the sea into the sunshine but found nothing to envelop; therefore he followed the lip of the Jovian tide up and down, drawing his energy from the sun's rays. The result was a walking begetable — in short, Mr. Three.

However, gentlemen of the Nobel Prize Foundation, it is not to press the views of the writer that this note was written, but to offer for your consideration

The Green Sploches

as candidates for the fifty thousand dollar Nobel Prize for the year 1920 the names of:

Demetrios Z. Demetriovich, Herbert M. Pethwick and James B. Standifer.

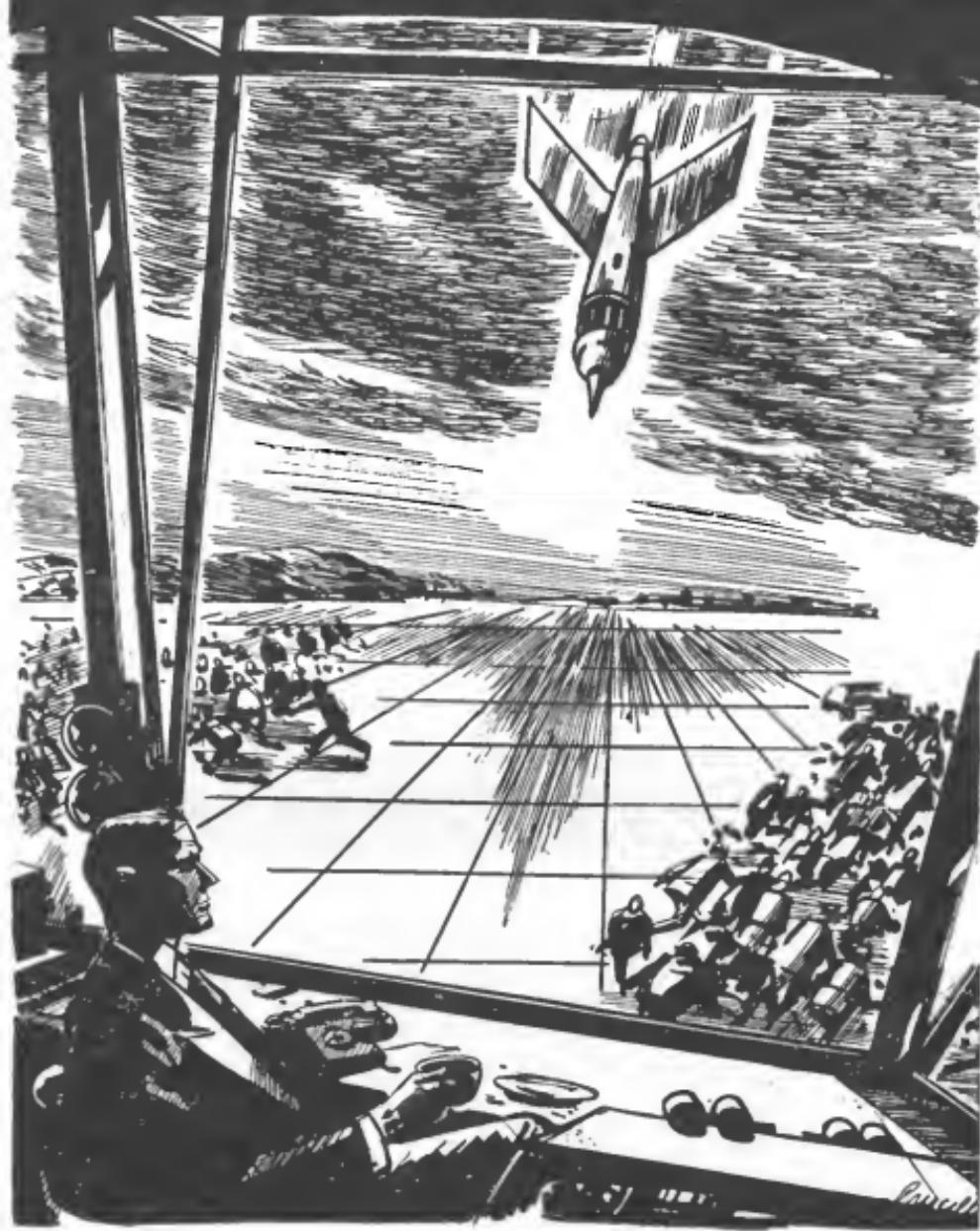
One of the five prizes for 1920 will be awarded to the man or group who have done the greatest service for the advancement of human knowledge during the twelvemonth.

These men, by their observations, taken at the peril of their lives, have blazed new avenues for the use of radium. Their journal suggests the feasibility of the universal use of telepathy, a development now confined to a few adepts and belittled by the unthinking. Their discoveries reveal the possibility of interplanetary travel and the vast commercial emoluments such a trade would possess. Their journal suggests to the ambitious soul of man a step beyond world citizenship, and that is stellar citizenship. It is a great step and will profoundly modify human thought.

In the past, gentlemen, epoch-making discoveries have been too often rewarded by Bridewell or Bedlam; it is gratifying to know that we have reached a stage of civilization where the benefactors of their race receive instead honor and emolument.

Gilbert H. DeLong,
New York City,
May, 1920.

The End



BEWARE THE FURY

BY THEODORE STURGEON

Still another choice sample of vintage Sturgeon—from the period in which he gave us such classics as "A Saucer of Loneliness," "The Silken Swift," and More Than Human (which won an International Fantasy Award for its brilliant insights into polyesperism). This one a sizzling indictment of all those ready to condemn a man before all the facts are in. Especially someone like Wolf Reger—inventor, recluse, spaceman—whose only crime was leading an alien invasion fleet to Earth!

READ it for yourself," said the Major.

She took the sheaf of flimsies from him and for a moment gave him that strange dry gaze. *The woman's in shock*, he thought, and did what he could to put down the

other two memories he had of eyes like that: an injured starling which had died in his hand; his four-year-old niece, the time he struck her, and the long unbearable moment between the impact and her tears.



Mrs. Reger read carefully and slowly.

Department of Defense
Bureau of Astronautics
Division of Planetary Exploration
Personnel Office
TOP SECRET

She said, at last, "That is the foulest thing a human being has ever done." Then her mouth slept again.

"I'm glad you agree," he said gratefully. "I was afraid that —"

"I don't think I understand you," she said tonelessly.

"That's what I was afraid of," he said miserably. "You meant the report. I thought you meant Wolf Reger."

She glanced down at the report. "That isn't Wolf. Wolf might be a lot of things . . . things that are . . . hard to understand. But he isn't a traitor." The Major saw her face lifting and turned his head to avoid those hurt eyes. "I think," she said quietly, "that you'd better go, Major, and take those lies with you."

He made no move toward the report. "Mrs. Reger," he suddenly shouted, "do you think I'm enjoying this? Do you think I volunteered for this job?"

"I hadn't thought about you at all."

"Try it," he said bitterly. Then, "Sorry. I'm sorry. This whole thing . . ." He pulled himself together. "I wish I could believe you. But you've got to re-

alize that a man died to make that report and get it back to us. We have no choice but to take it for the truth and act accordingly. What else can we do?"

"Do what you like. But don't ask me to believe things about my husband that just aren't so."

God, he thought, where did a rat like Reger ever find such a woman? As gently as he could, he said, "Very well, Mrs. Reger. You needn't believe it. . . . May I tell you exactly what my assignment is?"

She did not answer.

He said, "I was detailed to get from you everything which might have any bearing on — on this report." He pointed. "Whether I believe it or not is immaterial. Perhaps if you can tell me enough about the man, I won't believe it. Perhaps," he said, knowing his voice lacked conviction, "we can clear him. Wouldn't you help clear him?"

"He doesn't need clearing," she said impatiently. Then, when he made a tiny, exasperated sound, she said, "I'll help you. What do you want to know?"

All the relief, all the gratitude, and all the continuing distaste for this kind of work were in his voice. "Everything. Why he might do a thing like that." And, quickly, "Or why he wouldn't."

She told him about Wolf Reger, the most hated man on earth.

Beware the fury of a patient man.

Wolf Reger had so many talents that they were past enumerating. With them he had two characteristics which were extreme. One was defenselessness. The other was an explosive anger which struck without warning, even to Reger himself.

His defenselessness sprang from his excess of ability. When blocked, it was all too easy for him to excel in some other field. It was hard to make him care much for anything. Rob him, turn him, use him — it didn't matter. In a day, a week, he could find something better. For this he was robbed, and turned, and used.

His anger was his only terror. Perhaps this was innate; more likely it was the result of his guardian's cold theory of discipline, and a conviction that anger is a destructive habit and must be crushed the instant it shows itself. When he was two, when he was three, and twice when he was five, Wolf Reger was knocked unconscious by single, instant blows when he showed anger. Direct punishment was never necessary again.

When he was eight he was chasing another boy — it was fun; they ran and laughed and dodged through the boy's large old house. And at the very peak of hilarity, the other boy ran outside and slammed the french doors in Wolf's face and stood

grinning through the glass. Wolf instantly hit the face with his fist. The double-thick glass shattered. Wolf severed two tendons and an artery in his wrist, and the other boy fell gasping, blood from his carotid spurting between his futile fingers. The boy was saved, but the effect on Wolf was worse than if he had died.

He never ran and shouted again. He lived every moment of the next four years under the pressure of his own will, holding down what he felt was an internal devil, analyzing every situation he met for the most remote possibility of its coming to life again.

When he was twelve he met a situation he could not avoid. He was in his second year of high-school then, and every day for three weeks a bulky sophomore twice his size would catch him on his way from English to Geometry II, wrap a thick arm around his neck, and grind a set of knuckles into his scalp. Wolf took it and took it, and one day he tore himself free and struck. He was small and thin, and the chances are that the surprise of the attack was more effective than its power. Their legs were entangled and the bigger boy was off balance. He hit the tile floor with his head and lay quite still with his lips white and blood trickling from his ear. For six weeks they did not know if he would live or not. Wolf was ex-

elled from school the day it happened, and never went to another. From that point on he never dared be angry.

It was easy to hate Wolf Reger. He surpassed anyone he worked with and was disliked for it. He retreated from anyone who wanted what he had, and was despised for it.

He had two great successes — one a chemical process and one an airfoil design. They taught him enough about fame to frighten him away from it. Fame meant people, meetings, associates. After that he let others take the credit for the work he did, and if he hated them, he dared not show it.

At thirty he was married.

"Why?"

The question hung offensively in the air between them for an appreciable time before the Major realized that he had spoken it aloud and incredulously.

She said, carefully, "Major, what have you in your notebook so far?"

He looked down at the neat rows of symbols. "A few facts. A few conjectures."

With an accuracy that shook him in his chair, she said coldly, "You have him down as a warped little genius with every reason to hate humanity. If I weren't sure of that, I wouldn't go on with this. Major," she said suddenly in a different voice, "suppose I

told you that I was walking down the street and a man I had never seen before suddenly roared at me, leapt on my back, knocked me down, beat me and rolled me in the gutter. Suppose you had fifty eye-witnesses who would swear it happened. What would you think of the man?"

He looked at her sleek hair, her strong, obedient features. Despite himself he felt a quixotic anger toward her attacker, even in hypothesis. "Isn't it obvious? The man would have to be a drunk, a psychopath. At the very least he would have to be deluded, think you were someone else. Even if he did, only a real skunk would do a thing like that to a woman." He suddenly realized how easily she had pulled him away from his subject, and was annoyed. "What has this to do —"

"I hope you'll soon see," she said thoughtfully. Then, "You wanted to know why he married me."

The army wants to know that, he corrected silently. I'd like to know why you married him.

She committed suicide.

Relentlessly she told the Major why, and he put his pencil down until she had finished with that part of the story. This was a report on Reger, not on his wife. Her reasons were good, at the time, and they constituted a tale of disillusion and defeat which

has been, and will be, told again and again.

She stumbled out into the desert and walked until she dropped; until she was sure there could be no rescue; until she had barely strength to lift the phial and drink its contents. She regained consciousness eight months later, in civilian married quarters at Space Base Two. She had been dead twice.

It was a long time before she found out what had happened. Reger, who would not permit himself to move about among people, took his exercise at night, and found her.

How he saved her, no one but Reger could know. He knew she was drugged or poisoned, and exhausted. He found the right medication to keep her from slipping further away, but for weeks he could not bring her back.

Her autonomic nervous system was damaged. When she began to convalesce, he started drug therapy.

And still he kept his job, and no one knew.

And then one day there was a knock on his door. One room and bath; to open the door was to open the whole room to an outsider. He ignored the knock and it came again, and then again, timidly but insistently. He extrapolated, as always, and disliked his conclusion. A woman in his bachelor quarters created a situa-

tion which could only mean people and people, talk and talk—and the repeated, attenuated annoyance which, of all things, he feared most.

He picked her up and carried her into the bathroom and shut the door. Then he answered the knock. It was nothing important—a chirping little bird of a woman who was taking up a collection for a Thanksgiving party for the orphans in town. He wrote her a check and got rid of her, snarling suddenly that she must never bother him again—and pass the word. That, and the size of the check, took care of her and anyone like her.

He nearly collapsed from reaction after she had gone. He knew he could not possibly outguess the exigencies which might arise to bring other people on errands.



"Could you direct me to the Vampire State Building?"

She had been with him for four months now. How could he explain her? Doctors would know she had been under treatment for some time; the Air Force people at the Base, and their cackling wives, would make God only know what sort of racket about it.

So he married her.

It took another six weeks to build her up sufficiently to be moved. He drove her to a town a hundred and fifty miles away and married her in a hotel room. She was under a skilfully applied hypnotic, and carefully instructed. She knew nothing about it at the time and remembered nothing afterward. Reger then applied for married quarters, moved her back to the Base and continued her therapy. Let them pry.

"There's your androphobe," said Mrs. Reger. "He could have let me die. He could have turned me over to the doctors."

"You're a very attractive woman," he pointed out. "You were that, plus a challenge . . . two kinds of challenge. Could he keep you alive? Could he do it while doing his job? A man who won't compete with people generally finds something else to pit himself against."

"You're quite impartial while you wait for all the facts," she said bitterly.

"No I'm not," he said, and

quite astonished himself by adding, "It's just that I can't lie to you." There was a slight emphasis on the last word which he wished he could go back and erase.

She let it pass and went on with her story.

She must have had consciousness of a sort long before he was aware of it. She was born again, slowly, aware of comfort and safety, an alternation of light and dark, a dim appreciation of the ways in which her needs were met, a half-conscious anticipation of his return when she found herself alone.

He told her, with terror in his eyes, of their marriage, and he begged her pardon for it. It was as if a harsh word from her would destroy him. And she smiled and thanked him.

She convalesced very quickly after that. She tried her very best to understand him. She succeeded in making him talk about himself, and was careful not to help him, ever, nor to work with him at anything.

At the time the *Starscout* was in the ways, and they were running final tests on it. Reger was forced to spend more and more time out at the gantry area.

His extrapolations never ceased, and he was aware before she was that, not being a Wolf Reger, her needs were different from his. He suggested that she walk in the

sun when he was away. He told her where the commissary was, and left money for shopping. She did as he expected her to do.

Then he didn't come back from the gantry area any more, and when the fifty or sixty hours got to be seventy and eighty, she made up her mind to find him. She knew quite a few people at the Base by that time. She walked in, stopping at the post office on the way. The divorce papers were waiting for her there.

The Major dropped his pencil.

"You didn't know about that."

"Not yet. We'd have found out anyway." He stooped blindly for the pencil and cracked his head noisily on the coffee table. He demanded, "Why? Why did he divorce you?"

"He didn't. He filed suit. It has to be put on the court calendar and then heard, and then adjudicated, and then there's a ninety-day wait . . . you know. I went to a dance."

"A — oh." He understood that this was in answer to his question. "He divorced you because you went to a dance?"

"No! . . . well, yes." She closed her eyes. "I used to go to the Base movie once in a while when Wolf was working. I went down there and there was a dance going on instead. I sat with one of the women from the commissary and watched, and after a while her husband asked me to dance. I did.

I knew Wolf would have let me if he'd been there — not that he ever would.

"And I happened to glance through the door as we danced past, and Wolf was standing just outside. His face . . ."

She rose and went to the mantel. She put out her hand very slowly, watching it move, and trailed the tips of her fingers along the polished wood. "All twisted. All . . .

"As soon as the music stopped," she whispered, "I ran out to him. He was still there."

The Major thought, *Don't break, for God's sake don't. Not while I'm here.*

"Extrapolation," she said. "Everything he saw, he computed and projected. I was dancing. I suppose I was smiling. Wolf never learned to dance, Major. Can you imagine how important that can be to a man who can do anything?"

"When I got outside he was just the same as always, quiet and controlled. What he was going through inside, I hate to think. We walked home and the only thing that was said was when I told him I was sorry. He looked at me with such astonishment that I didn't dare say anything else. Two days later he left."

"On the *Starscout*. Didn't you know he was a crew-member?"

"No. I found out later. Wolf had so many skills that he was nine-tenths of a crew all by himself. They'd wanted him for the

longest time, but he'd always been confused. I guess because he couldn't bear sharing quarters with someone."

"He did, with you."

"Did he?"

The Major did not answer. She said, "That was going to end. He was sure of that. It could end any time. But space flight's something else again."

"Why did he divorce you?"

She seemed to shake herself awake. "Have I been talking out loud?" she asked.

"What? Yes!"

"Then I've told you."

"Perhaps you have," he conceded. He poised his pencil.

"What are you going to write?" When he would not answer, she said, "Not telling the truth any more, Major?"

"Not now," he said firmly.

For the second time she gave him that searching inspection, really seeing him. "I wonder what you're thinking," she murmured.

He wrote, closed the book and rose. "Thank you very much for coöperating like this," he said stiffly.

She nodded. He picked up his hat and went to the door. He opened it, hesitated, closed it again: "Mrs. Reger —"

She waited, unbelievably still — her body, her mouth.

"In your own words — why did he file suit?"

She almost smiled. "You think my words are better than what you wrote?" Then, soberly, "He saw me dancing and it hurt him. He was shocked to the core. He hadn't known it would hurt. He hadn't realized until then that he loved me. He couldn't face that — he was afraid we might be close. And one day he'd lose his temper, and I'd be dead. So he went out into space."

"Because he loved you."

"Because he loved me enough," she said quietly.

He looked away from her because he must, and saw the report still lying on the coffee table. "I'd better take this along."

"Oh yes, do." She picked it up, handed it to him. "It's the same thing as that story I told you — about the man knocking me down."

"Man — oh. Yes, that one. What was that about?"

"It really happened," she said. "He knocked me down and beat me, right in broad daylight, in front of witnesses, and everything I said about it is true."

"Bastard," growled the Major, and then blushed like a girl. "I'm sorry."

She did smile, this time. "There was a loading-dock there, in front of a warehouse. A piece of machinery in a crate got loose and slid down a chute toward the street. It hit a drum of gasoline and struck a spark. The first thing I knew, I was all over flames.

That man knocked me down and beat them out with his bare hands. He saved my life."

Slowly, his jaw dropped. She said, "It makes a difference, when you know all the facts, doesn't it? Even when the first facts you got are all true?" She rapped the TOP SECRET stamp with her fingernails. "I said this was all a lie. Well, maybe it's all true. But if it is, it's like the first part of that little story. You need the rest of it. I don't. You don't know Wolf Reger. I do. Good bye, Major."

He sat in his office at Headquarters and slowly pounded the fresh copy of his transcribed notes. *I have to send them the way they are*, he thought, and *but I can't. I can't.*

He swore violently and got up. He went to the water-cooler, punched out a paper cup, filled it, and hurled it into the wastebasket. *All I have is facts. She has faith.*

He cursed again and snatched up his briefcase, unlocked it, and took out the secret report. He slammed it down on top of his transcript. *One more look. One more look at the facts.*

He read:

This is the fourth time I've erased this tape and now I got no time for officialese if I'm going to get it all on here. A tape designed for hull-inspection reports in space wasn't designed for a description of a planetary invasion. But that's what

it's got to be. So, for the record, this is Jerry Wain, Starscout navigator, captive on one of the cruisers that's going to invade Earth. First contact with extraterrestrials. Supposed to be a great moment in human history. Likely to be one of the last moments too.

The Starscout's gone and Minelli, Joe Cook, and the Captain are dead. That leaves me and that bastard Reger. The aliens had us bracketed before we knew it, out past Jupiter. They cut up the 'scout with some sort of field or something that powdered the hull in lines as broad as your hand. No heat, no impact. Just fine powder, and she fell apart. Joe never got to a suit. The Captain went forward to stay with the ship, I guess, and couldn't have lived long after they sliced the dome off the control room. The three of us got clear and they took us in. They cut Minelli up to see what his guts looked like. I haven't seen Reger but he's alive, all right. Reger, he can take care of himself.

I've only seen two of the aliens, or maybe I saw one of 'em twice. If you can imagine a horse-shoe crab made out of blue airfoam, with a wide skirt all the way around it, the whole works about four and a half meters across, that's close. I'm not a biologist, so I guess I can't be much help on the details. That skirt sort of undulates front to back when it moves. I'd say it swims through the air — hop and glide, hop and glide. It can crawl too.

First I thought it slid along like a snail but once I saw a whole mess of little legs, some with pincers on them. I don't know how many. Too many, anyhow. No eyes that I could spot, although it must have 'em; it's light in here, grayish, like on a snowfield on an overcast day. It comes from the bulkhead. Floor, too — everywhere.

Gravity, on a guess, is about one-sixth Earth. The atmosphere's hot, and seems to be light gases. I cracked my oxy relief valve and struck a spark on it with the back of my glove, and that was pretty spectacular. Hydrogen for sure. Something else that gives an orange cast to the flame. You figure it.

The compartment I'm in is altogether bare. There's a transparent oval port on one bulkhead. They can take off like a bullet and stop as if they'd hit a wall. They have some way of cancelling inertia. Or most of it. Riding inside is pretty rough, but coming to a dead stop in two seconds from a thousand k.p.h. or better should butter you all over the walls instead of just slamming you into the bulkhead like it does. They can't operate this inertia field close to a planet — they use wings, and they don't have the right wings. Not for Earth. Not yet.

I counted twenty-six ships — sixteen big ones, cruisers I guess you'd call them; two-fifty to three hundred meters long, perfect cyl-

inders. And ten small ones, oblate spheres, thirty meters in diameter.

When they brought us in first they slung me in here and nothing happened that I knew about, for sixteen hours. Then that first bug came in through a sort of pucker in the wall that got transparent and spread out and let him through and then bing! the wall was solid again.

I guess I went a little crazy. I had my antenna-wrench off the belt-rack and was throwing it almost before I knew what I was doing. I missed. Didn't allow for the gravity, I guess. It went high. The bug sort of humped itself and next thing I knew I couldn't move. I could, inside the space-suit, but the suit was like a single iron casting. It toppled slowly and lay there.

The bug slid over to me and hitched up a little — that's when I saw all those little legs — and got everything off my belt — torch, still-son, antenna-reel, everything that would move. It didn't touch my tanks — I guess it knew already about the tanks. From Reger, busy-boy Reger. It took the whole bundle over to the outer bulkhead and all of a sudden there was a square hole there. It dropped my stuff in and the hole went away, and out through the port I could see my stuff flash away from the ship, going like hell. So that's how I found out about the disposal chute.

The bug slid away to the other wall and I was going to give it a

shot from my heel-jets, but somehow I had sense enough not to. I didn't know what damage they'd do, and I might be able to use 'em later. If anyone's reading this, I did.

They don't feed me, and my converters are pretty low. I've rationed my air and water all I could, but it's past conversion now, without a complete recharge, and I'm not likely to get that.

This whole time, the ships have been busy. We're in the Belt, I'd guess, without instruments, around 270-20-95. Check those coordinates and hunt a spiral from that center — I'm pretty sure we're near that position. Put infra-red on it; even if they've gone by then, there should be residual heat in these rocks out here. They've leeched onto a big one and it's practically gone now. They make long fast passes back and forth like a metal-planer. I can't see a ray or beam or anything, but the surface flows molten as the ships pass. Mining. I guess they filter the slag some way and distill the metals out. I wouldn't know. I'm a navigator. All I can think of is those ships making passes like that over the Golden Gate and Budapest and LaCrosse, Wisconsin.

I found out how to work the disposal chute. Just lean against it. It was a lock with some sort of heavy coils around it, inside, I guess to project refuse away from the ship so it wouldn't orbit.

Well, six hours ago a sort of dark spot began to show on the inboard bulkhead. It swelled up until it was a knob about the size of your two fists, shiny black, with some kind of distortion field around it so it was muzzy around the edges. For a while I couldn't figure it at all. I touched it and then took hold of it, and I realized it was vibrating around five hundred cycles, filling my suit with the note. I got my helmet onto it right away.

The note went on and then changed pitch some and finally spread out into a noise like a forty-cycle carrier, and something started modulating it, and next thing it was saying my name, flat and raspy, no inflection. An artificial voice, for sure. "Wain," it said, clearing itself up as it went along. "Wain, Wain."

So I kept my head tight against it and yelled, "Wain here."

It was quiet for a while, just the carrier, and then the voice came in again. I won't bother you with exactly what it sounded like. The language was rugged but clear, like "Wain we no have planet you have planet we take you help."

There was a lot of yelling back and forth until I got the picture. And what I want to tell you most is this: once in a while when I listened real carefully I heard another voice, murmuring away. Reger — that I'll swear. It was if this voder, or voice machine, was being run by one of the bugs and Reger

was telling it what to say but they wouldn't trust him to talk directly to me.

So damn cold-blooded . . . it wasn't us they were after. You clear a patch of wood, you're not trying especially to dispossess the squirrels and the termites. That just happens while you work.

For a while I hoped we could maybe do something, but item by item they knocked that out of my head. Reger'd told 'em everything.

We're done, that's all.

So I asked what's the proposition, and they said they could use me. They didn't really need me, but they could use me. They said I could have anything I wanted on Earth, and all the slaves I could put to work. Slaves.

Maybe I shouldn't even try to warn you. Maybe it'll be better if you never know what hit you . . .

Reger, he . . . he's . . . a hstick to facts, Wain. Something makes him hate Earth enough to . . . I don't see even a coward doing a thing like this just to save his skin. He has to have some other reason.

The bump on the wall said, Reger work with him, you can trust.

Yeah, I can trust. I told them what to do with their proposition and shoved Reger along after it.

Now this is what I am going to do. Try, anyhow. My suit's the only one with a tape recorder, and it's internal. Could be Reger doesn't even know about it. What I'm going

to do is wait until this ship starts paring away at the asteroid. It gets up quite a hell of a speed at each pass, more than you'd think, because of the inertialess field. At the sunward end of one pass, I'll go out the chute. I'll have the ship's speed plus the throw-out coils in the chute.

I'll gyro around to head for the sun. I've wired the heel-jet starter to my oxy supply. When the oxy stops flowing the jets'll cut in.

And I've wired the jets to my distress squealer. When the fuel's all gone the squealer'll cut in.

We're positioning over the rock.

Don't anybody call me a hero for doing this. I'm not doing it for you. I'm doing it to Reger. That bastard Reger . . .

Jimmy Wain here, over and out.

The Major lifted the flimsies to uncover his own transcript. Coldly it listed the pertinent facts of his interview with the traitor's wife. He read them through again slowly, right through the last paragraph, which said:

SUMMATION: It is indicated that the subject is a brilliant but twisted individual, and that early influences as noted, plus his mode of life, have induced a morbid fear of himself and a deep distrust of every human being, including his wife. His extrapolative ability plus his vivid imagination seem to have created a certainty in him that he had been betrayed, or that he certainly would

be. His actions as reported by Signalman Wain are apparently motivated by a conviction that all his life humanity has tried to anger him so that he will be punished for his anger. This is his opportunity for vengeance without punishment.

The talker hissed, and a voice said, "Major, the Colonel would like your report on the Reger interview."

"Roger." He caught it up, held it, then slid it into his auto-writer and rapidly tapped out:

The undersigned wishes to stress the partial, nature of the above report, based as it is on the statement of a man under serious strain. Further evidence might conceivably alter the conclusions as stated.

He signed it and added his rank and section, rolled it, canned it and slapped it into the pneumatic tube.

"Now what the hell did I do that for?" he asked himself. He knew what the answer was. He rose and went to the mirror in the corner by the water-cooler, and peered into it. He shook his head in disgust.

When the ships were sighted, Wain's recording came out of the files and went straight to the wire services. One of the columnists said later that the ensuing roar from earth all but moved the moon out of its orbit.

Without Wain's recording, the alien might have slipped close,

or even landed, before the world was alerted.

The ships came single file, faster than any man-made object had ever travelled. They were exactly what Wain had described.

They bore straight in for Earth, their single file presenting the smallest possible profile to Earth radar. (Reger knew radar.) When every known law of spatial ballistics dictated that with that course, at that velocity, they must plunge straight into the planet, they decelerated and swung to take up an orbit — rather, a powered course — around the planet, just out of rocket interceptor range (which Reger knew).

And now their wings could be seen. Telefax and television, newspapers and government agencies researched their contours in minutes. They were familiar enough — a gull-wing design which one aeronautical engineer described as having "every characteristic that could be built into a wing." Each wing, from root to tip, had its own reverse dihedral. Each was sharply tapered, and sharply swept back. Even the little spherical destroyer had them, along with a boom to support the butterfly tail. There was one Earth design almost exactly like it — an extremely stable large-plane airfoil for subsonic use. The designer: Wolf Reger.

The space scouts roared up to challenge them, heavy with armament and anger. They sent a cloud

of missiles ahead of them. There was H.E. and atomics, solid-shot and a whole spectrum of random-frequency radio, just in case.

The radio waves affected the aliens precisely as much — as little as the fusion warheads. Telescopic lenses watched the missiles race to their targets and simply stop there, to slide around the shining hulls and hang there until, one by one, they were brought aboard.

And then the little scouts tried to ram, and were deflected like angling guppies from the sides of an aquarium, to go screaming off into space and a laborious turn.

For three days the enemy circled outside the atmosphere, holding their formation, absorbing or ignoring everything Earth could throw at them.

The Major telephoned Reger's wife to ask if she had removed the name from her mailbox and doorbell. She said indignantly that she had not, would not, and need not. The Major sighed and sent a squad down late that night to arrest her. She was furious. Yet she conceded his point fairly the next morning when she saw the newspaper photographs of her apartment. Even the window-frames were gone. The mob had chopped right through the floor in places, had even heaved the bathtub twelve floors down to the street. "You should know as much about people as you think you

know about Wolf Reger," he said.

"You should know as much about Wolf as you do about people," she countered. There was, with her composure, a light he had not seen before.

He kept her in his office. She seemed not to mind. He let her read all the invasion reports as they came in, and he watched every flicker of expression in her face. "When are you going to admit that enough facts are in to show that there's no hero in this story, no one beating out flames?"

"Never. Have you ever been married, Major?"

Sourly, he thought, *Have you?* "No," he said.

"You've loved someone, though?"

He wondered how she kept her features so controlled under stress. He would like to learn that trick.

He said, "Yes."

"Well, then. You only need a few facts about the one you love. Just enough to point the way."

"Three points on a graph to give you a curve, so you can know its characteristics and extend it. Is that what you mean?"

"That's one of the things I mean."

"They call that extrapolation. Your boy's specialty."

"I like that," she said softly. "I like that very much." She detached her eyes from him, from the room, and smiled at what she

saw. "God!" he exploded.

"Major!"

"You're going to get clobbered," he said hoarsely. "You're going to get such a kick in the teeth . . . and there isn't a thing in the world I can do about it."

"Poor Major," she said, looking at him as if he were a memory.

There was a click, and electronic noise filled the room. The talker barked, "Enemy spiralling in. Stand by for trajectory."

"Now you'll see." They realized that they had spoken in unison, but it was the wrong time to exchange a smile.

"Arizona!" said the speaker, and "Stand by."

"Stand by hell," growled the Major. "We'll get the fine points by radio. Come on."

"You'll take me?"

"Wouldn't let you out of my sight."

They ran to the elevators, shot to the roof. A helicopter whisked them to the field, and a jet took them in and tore up and out to the lowering sun.

An unbroken cordon can be thrown about a hundred square miles in less than an hour and a half. This is true, because it was done immediately after the alien fleet touched Earth. Once the landing site was determined, the roads writhed with traffic, the desert crawled with men and machines, the air shook with

transports, blossomed with parachutes. The ring had not quite closed when the enemy formation came down almost exactly in the predicted center. No longer a single file, the formation was nearly spherical. It arrived on earth with two thunders — one, the terrible crack as the cloven air smashed back to heal itself, and rebounded and smashed again; the other, a shaking of the earth itself.

And the cordon stopped, flattened, lay still as a stain while the furious globe built itself in the desert, flung its coat of many colors about itself, mounted the sky and donned its roiling plumes.

And there were no ships, no aliens, no devils there in the desert, but hell itself.

They saw it from the jet, because they were keeping close radio contact with the landing, and straining their eyes into the sunset for a glimpse of the fleet. Their pilot said he saw them, coming in at an impossible speed. The Major missed them as they blinked by, but he did see their wings, like a flurry of paper over a windy corner, drifting brokenly down. And then the fireball fought the sun and, for a while, defeated it, until it became a leaning ghost in a broad, torn hat.

It seemed a long, long time after that when the Major, his palms tight to his eyes, whispered, "You knew that would happen."

"No I didn't," she whispered back, cathedral-awed. "I only knew *something* would happen."

"Reger did this?"

"Of course." She stirred, glanced at the tower of smoke, and shuddered.

"How?" he murmured. "How?"

He closed his eyes against the lingering glitter of the atom blast, and in his memory saw again those broken, fluttering pieces of wing.

"The wings tore off." To the pilot he said, "Isn't that what happened, Captain?"

"It sure is," said the young man. "And no wonder, sir, the way they flashed in. I've seen that happen before. You can fly under the speed of sound or over it, but you better not stay just *at* it. Looked to me as if they hung on the barrier all the way in."

"All flown from one set of controls . . . probably an automatic pilot, with the course and speed all set up." He looked at the woman. "Reger set it up." Suddenly he shook his head impatiently. "Oh *no!* They wouldn't let him get away with it. Why would they let him deploy their ships?"

"I guess," said the pilot reflectively, "because he made the wings for them, they thought he would know best how to use them."

Mrs. Reger said, "Everything

else he told them was true."

"But they'd have known about the barrier. Captain, just what is the speed of sound up in the stratosphere?"

"Depends, sir. At sea level it's around 340 meters per second. Up at 30 kilometers or so it's around 300, depending on the temperature."

"The density?"

"No sir. Most people think that, but it isn't so. The higher the temperature, the higher the speed of sound. Anyway, the sound barrier they talk about is just a convenient term. It happens that shock waves form around a ship anywhere from 85% to 115% of the speed of sound, because some airflow around it is supersonic and some still subsonic and you get real weird flow patterns."

"I see. Captain, could you set up a flight-plan which would keep an aircraft at the buffeting stage from the top of the atmosphere down to the bottom?"

"Imagine I could, sir. Though you wouldn't get much buffeting above 35 kilometers or so. No matter what the sonic speed, the air's too thin for shock wave formation."

"Tell you what. You work out a plan like that. Then radio Radar at Prescott and get the dope on Reger's approach."

"Yes sir." The young man went to work at his chart table.

"It's so *hard* for you," Mrs. Reger said.

"What is?"

"You won't believe it until your little graph's all plotted, with every fact and figure in place. Me, I *know*. I've known all along. It's so easy."

"Hating is easy too," said the Major. "You've probably never done much of that. But *un*hating's a pretty involved process. There's no way of doing it but to learn the facts. The truth."

They were five minutes away from the mushroom when the Captain finished his calculations. "That's it, sir, that's what happened. It couldn't have been an accident. All the way down, under power, those ships stayed within four percent of sonic speed, and tore themselves to pieces. You really think Reger planned that approach, that way, sir?"

"Looks like it. From thirty kilometers to the ground, at that speed . . . it was all over in fifteen seconds."

"Reger," muttered the pilot. He went back to the controls and switched off the automatics. "One of the radar pix showed Reger's space-suit, Major," he said. "Looks like he bailed out same as Wain did — through a disposal chute."

"He's alive!"

"Depends." The young man looked up at the Major. "You think that mob down there is

going to wait while we compute velocities for 'em?"

"That's a military setup, Captain. They'll do what they're told."

"About Reger, sir?"

He turned his attention to the controls, and the Major went thoughtfully back to his seat. As they whistled down to the airstrip behind the cordon, he suddenly thumped his knee. "Light gases, high temperature — of *course* those bugs never heard of a shock-wave at what we call sonic speed! You see? You see?"

"No," she said. He understood that she did not need to see. She knew.

No ships, no aliens, no invasion. That, apparently, changed nothing. Reger's space-suit had been found — empty. Reger was holed up in the brush, or mingling with the service men and refugees inside the cordon. They were closing the cordon and they would get him. A matter of time, they told him at the command post.

The Major pounded the calculations he had brought. "Damn it, he's innocent, can't you see that?"

The young non-com from Psych Warfare — all the brass was inside the cordon, joining the search — said gently, "Yes, sir, I see it. But you don't know what's going on in there. Too many people have hated that man for too long.

You can't stop 'em with a 'now-hear-this' on the speakers. Even if the soldiers held off, the place is full of civilians and they're foaming at the mouth."

"Nonsense! Orders are orders! By God I'll —"

"Please," said the non-com, "will you go inside and see for yourself?"

The Major glanced back toward the airstrip and the dark jet, where the young pilot stood guard over the woman. "I will," he said. He handed over the tablet. "Take these and do what you can to spread the word."

"Yes sir." He walked briskly out into the darkness until the Major was out of sight. "Me say anything good about Reger — in *there*?" he murmured. "Not this boy. Some other time." He shoved the papers into his tunic and returned to the CP.

The Major walked quietly through the mob, listening. There were soldiers and Air Force men, security officers and civilians. Behind him, the cordon, tightening, reducing the strip between themselves and the radioactive area. In the cordon, a human gateway: FBI, CIA, G-2, screening. The Major listened.

"He got to be inside somewhere."

"Don't worry, we'll get the —."

"Hey George, tell you what. We get our hands on him, let's

keep our mouth shut. Army gets him, it's a trial and all kind of foofaraw. This bunch gets him, they'll tear him to pieces right now."

"So?"

"Too quick. You and me, one or two other guys from around here —"

"I hear you."

From somewhere back of the cordon, a tremendous huffing and puffing, and a casual, enormous voice, "Mike hot, Lieutenant," and then the Psycho Warfare officer: "All right, Reger. We know you didn't mean it. No one here will hurt you. You'll get fair treatment all down the line. We understand why you did it. You'll be safe. We'll take care of you. Just step right up."

The space-suit hung grotesquely by its neck against a shattered barn wall. A scraggly man in filthy coveralls stood by a pile of rocks and chunks of four-by-four. "Just three for a dime, gents, and the ladies free. Step right up and clobber the son. Limber up for the real thing. I thank you sir: Hit him hard." A corporal hefted a round stone and let fly. It hit the space-suit in the groin and the crowd roared. The scraggly man chittered, "One on the house, one on the house!" and handed over another stone.

The Major touched a smooth-faced lieutenant on the arm. "What goes on?"

"Huh? The suit, sir? Oh, it's all right. G-2's been and gone. His, all right. He's got to be around some place. Well, it's us or the hot stuff — he can take his choice. The cordon's getting radiation armor."

"There'll be hell to pay over this caper."

A soft voice said, "One look around here, I wish Reger'd gotten away with it."

The Major said warmly, "You're a regular freak around here, mister," and was completely misunderstood. The man ran away, and the Major could have bitten his tongue in two.

I want to be in a place, the Major thought suddenly, passionately, where the truth makes a difference. And: If I were a genius at extrapolation, where would I hide?

"Mr. Reger, you're a reasonable man," bellowed the speaker.

"Three for a dime. For a quarter you can throw a second lieutenant."

"He should hold out. He should go back into the bald-spot and fry slowly."

The cordon moved in a foot. *I just thought of the funniest gag, thought the Major. You pour vinegar on this sponge, see, and hold it up on this stick . . .*

Slowly he walked back toward the cordon, and then like a warm, growing light, it came to him

what he would do if he were a genius at extrapolation, trapped between the advancing wolves and the leaping flames. He'd be a flame, or a wolf. But he couldn't be this kind of a flame. He couldn't be an advancing wolf. He'd have to be a wolf which stayed in one spot and let the advance pass him.

He went and stood by the man. This wasn't the notorious Reger face, hollowed, slender, with the arched nose.

He realized abruptly that the man's nose was broken and not bruised. A man could do that with his own hands if he had to. And a man would have to wear coveralls for weeks to get them that filthy. Say, in a space-suit.

"I'll take three," he said, and handed the man a dime.

"Atta boy, Maje." He handed over two rocks and a billet. The Major aimed carefully, and said from the side of his mouth, "Okay, Reger. We've got to get you out of here."

And I could be wrong, too, thought the Major. Even if he isn't Reger, this mob would tear him to pieces if I so much as pointed my finger. He hurled his rock at the space-suit. From the side of his mouth, hardly moving his lips, he said, "High temperature, light gases, no barrier. I know what you did. Let me get you out of here."

"One on the house!" bellowed

the barker. "You sure can throw it, Major."

The Major said, softly, "One thing you never extrapolated, genius. Your wife never lost faith. Two billion people hated your guts, but she wouldn't break."

"I can't hear a word you say," said the barker, and yelled, "Each man kills the thing he loves, an' we all love Reger! Come on, lovers!"

He wants to live, thought the Major, but not with her; he thinks he might kill her with that temper. That's why he shipped out in the first place.

That temper . . .

He hefted the billet of wood. Aiming apparently at the space-suit, but speaking into and over his shoulder, he said, "Fine hunk o' flesh, that woman. I'll have 'er one way or another, but it'll be easier with you out of the way. Come on, damn you, make a break." He started to swing as he spoke.

As long as he lived, he would not forget his microsecond of terror. For the barker sprang at him so fast that he seemed to disappear from where he stood and reappear in midair, teeth bared, claws out. The billet landed heavily on the man's temple, and the Major knew it was a solid blow, knew that consciousness was gone. And the terror existed in that instant before the man's body struck him, for even through

unconsciousness the hate went on, twisting the corpse-like features and finishing the animal attack even while the eyeballs were rolling up, the mind darkening.

He let the flailing claws strike him and fall limp, concentrating only on bracing himself so he would not fall, so there would be no scuffle to draw attention. He threw a thick arm around the man's chest and held him upright, walked with him so quickly to the gate in the cordon that the crowd around the space-suit barely had time to turn their heads.

To the FBI man he said, "If it's all the same to you, I'm curtailing this enterprise."

A G-2 lieutenant opened his mouth to protest, glanced at the Major's leaves, and shut his mouth. The FBI man said, "Good idea, Major. That sideshow was pretty stickering. Who is he?"

Recalling the running feud between the Army and his own branch of the Service, the Major glanced at and away from the G-2 man. "One of my own men acting above and beyond the call of duty," he said disgustedly, and shouldered through the opening. The G-2 shavetail ineptly covered up a snicker, and then they were through.

The Major commandeered a jeep and dismissed the driver. They hummed off through the darkness toward the airstrip.

"Dead."

"Poor Wain," Reger said gently.

"He got mad. Man doesn't think right, when he gets mad."

"That's what they thought about you."

He snorted, bitterly. "I didn't *dare* get mad! That's how I could think. Didn't anyone figure that out?" He hung his head and said, "All my life I've been protecting human beings — why should I stop?" He tugged at his bonds. "You can turn me loose. I never *stay* mad."

The Major freed him, started the jeep and pulled back to the road. Reger was quite quiet until they were on the strip, when he said hoarsely, "You didn't love her enough to turn me over to that mob. You'll never have a better chance."

"Did I say I loved her?"

"One way or another."

They approached the dark jet-plane. "So I didn't love her enough," growled the Major. He reached up and slapped the side of the plane. *I just loved her enough to do this.* "I brought him back," he called.

The door opened, and from the shadows she said, "I knew you would." They helped Reger in. The Major climbed in beside the pilot. "Fly," he said.

The Major thought, *She knew I would. She had faith in me, too.*

A long time later he thought, *That's something, anyway.*

Halfway there, the Major pulled off the road into the thick shadows of a yucca forest. He fumbled in the catch-all and found a length of tow-chain. He drew it around the unconscious man's biceps and knotted it behind him. Then he began to roll the head and slap the hot cheeks. The man moaned.

"You're safe, Reger," the Major said. "Safe now, Reger, you're safe." He felt, rather than saw, the sudden tension which came with consciousness.

"I'm taking you back to your wife. You're safe now."

"I'll kill her. Some day I'll kill her," he mumbled. "Let me go. Why not let them get me?"

Why? Instead, he said, "You'll never kill her, Reger. And if you did, it would be all right. She'd rather die that way than live without you. . . . But we're going to fix that. We're going to make it so you can get mad at anyone, any time, and no one will get hurt. No matter what it takes. We owe you a lot."

Reger sat up dizzily and looked back toward the pool of light, the growls of hate at the cordon. "Everybody owes me. Why *that*?"

"Wain got a report through. Everyone on earth thought you had turned Earth over to the aliens."

"Wain's all right?"

IF THERE was one thing Dr. Kalmar hated, and there were many, it was having a new assistant fresh from a medical school on Earth. They always wanted to change things. They never realized that a planet develops its own techniques to meet its own requirements, which are seldom similar to those of any other world. Dr. Kalmar never got along with his assistants and he didn't expect to get along with this young Dr. Hoyt who was coming in on the transfer ship from Vega.

Dr. Kalmar had been trained on Earth himself, of course, but he wistfully remembered how he had revered Dr. Lowell when he had been Lowell's assistant. He'd known that his own green learning was no match for Dr. Lowell's wisdom and experience after 30 years on Deneb, and he had avidly accepted his lessons.

Why, he grumbled to himself on his way to the spaceport to meet the unknown whippersnapper, why didn't Earth turn out young doctors the way it used to? They ought to have the arrogance knocked out of them before they left medical school. That's what must have happened to him, because his attitude had certainly been humble when he landed.

The spaceport was jammed, naturally. Ship arrivals were infrequent enough to bring everybody from all over the planet who



"Wanta know what's wrong with women these days? Spoiled! The whole kit and kaboodle of 'em. They want to sing in nightclubs and hook up with some millionaire and wear beautiful clothes. Housework is something for gadgets to take care of, with maids to run the gadgets. Afraid to get a few calluses on their dainty hands!"

"We got a way to handle that on Deneb. A girl gets highfalutin up there, the Doc puts her in the Ego Alter room. Thicken up her ankles a little, take some of the sparkle out of her eyes and hair, and you get a woman fit to pull a plow!"

Hold it, Madam! H. L. Gold said that; not us. Personally, we like girls — not Percherons!

No Charge For Alterations

By H. L. GOLD



Illustrator: H. Sharp

was not on duty at the farms, mines, factories, freight and passenger jets and all the rest of the busy activities of this comparatively new colony. They brought their lunches and families and stood around to watch. Dr. Kalmar went to the platform.

The ship sat down on a mushroom of fire that swiftly became a flaming pancake and then was squashed out of existence.

"I'm waiting for a shipment of livestock," enthused the man standing next to Dr. Kalmar.

"You're lucky," the doctor said. "They can't talk back."

The man looked at him sympathetically. "Meeting a female?"

"Gabbier and more annoying," said Dr. Kalmar, but he didn't elaborate and the man, with the courtesy of the frontier, did not pry for an explanation.

Livestock and freight came down on one elevator and passengers came down another. Slide-walks carried the cargo to Sterilization and travelers to the greeting platform. Dr. Kalmar felt his shoulders droop. The man with the medical bag had to be Dr. Hoyt and he was even more brisk, erect and muscular than Dr. Kalmar had expected, with a superior and inquisitive look that made the last assistant, unbearable as he'd been, seem as tractable as one of the arriving cows.

Dr. Hoyt spotted him instantly and came striding over to grab

his hand in a grip like an ore-crusher. "You're Dr. Kalmar. Glad to know you. I'm sure we'll get along fine together. Miserable trip. Had to change ships four times to get here. Hope the food's better than shipboard slop. Got a nice hospital to work in? Do I live in or out?"

Dr. Kalmar was grudgingly forced to say rapidly. "Right. Likewise. I hope so. Too bad. Suits us. I think so. In."

He got Dr. Hoyt into a jetcab and told the driver to make time back to the hospital. Appointments were piling up while he had to make the courtesy trip out to the spaceport, which was another nuisance. Now he'd have all of those and a talkative assistant who'd want to know the reasons for everything.

"Pretty barren," said Dr. Hoyt, looking out the window at the vegetationless ground below. "Why's that?"

He'd known he was going to Deneb, Dr. Kalmar thought angrily. The least he could have done was read up on the place. *He had.*

"It's an Earth-type planet," Dr. Kalmar said in a blunt voice, "except that life never developed on it. We had to bring everything — benign germ cultures, seed, animals, fish, insects — a whole ecology. Our farms are close to the cities. Too wasteful of freight to move them out very far. Another

few centuries and we'll have a *real* population, millions of people instead of the 20,000 we have now in a couple of dozen settlements around this world. Then we'll have the whole place a nice shade of green."

"City boy myself," said Dr. Hoyt. "Hate the country. Hydroponics and synthetic meat—that's the answer."

"For Earth. It'll be a long time before we get that crowded here on Deneb."

"Deneb," the young doctor repeated, dissatisfied. "That's the name of the star. You mean to tell me the planet has the same name?"

"Most solar systems have only one Earth-type planet. It saves a lot of trouble to just call that planet Deneb, Vega or whatever."

"Is *that* clutch of shacks the city?" exclaimed Dr. Hoyt.

"Denebia," said Dr. Kalmar, beginning to enjoy himself finally.

"Why, you could lose it in a suburb or Bosyorkdelphia!"

"That monstrosity that used to be New York, Pennsylvania, Connecticut, Rhode Island and Massachusetts? I wouldn't want to."

He was pleased when Dr. Hoyt sank into stunned silence. If luck was with him, that stupefaction might last the whole day. It seemed as though it might, for the sight of the modest little hospital was too much for the youngster who had just come from the mam-

moth health factories of Earth.

Dr. Hoyt revived somewhat when he saw the patients waiting in the scantily furnished outer room, but Dr. Kalmar said, "Better get yourself settled," and opened a door for his immature colleague.

"But there's only one bed in this room," Dr. Hoyt objected. "You must have made a mistake."

Dr. Kalmar, recalling the crowded cubicles of Earth, gave out a proud little dry laugh. "You're on Deneb now, boy. Here you'll have to get used to spaciousness. We like elbow room."

The young doctor went in hesitantly, leaving the door open for a fast escape in case an error had been made. Dr. Kalmar had done the same when he'd arrived nine years ago. Judging by his own experience, it would take Dr. Hoyt a full six months to get used to having a room all to himself. There would be plenty of time to start showing him the ropes tomorrow, and in the meantime there were the backed-up appointments to be taken care of.

Dr. Kalmar went to his office and had his nurse, Miss Dupont, send in the first patient.

It was a girl of 17, Avis Emery, who had been brought by her parents. She sat sullenly, dark-haired, too daintily pretty and delicately shapely for a frontier world like this, while Mr. Emery put the file from Social Control on the doctor's desk.

"We're farmers —" the man began.

Dr. Kalmar interrupted, "The information is in the summary. Avis is to be assigned her mate next year, but she wants to go to Earth and become a nightclub singer. She refuses to marry a boy who'd be able to help around the farm, and she won't work on it herself."

He looked up severely at the parents. "This is your own fault, you know. You pampered her. Farm labor is too valuable for pampering. We can't afford it."

"You can blame me, Doc," said Mr. Emery miserably. "She's such a pretty little thing — I couldn't work her the way Sue and I work ourselves."

"And then she started getting notions," Mrs. Emery added, giving her husband a vicious glare. Dr. Kalmar could imagine the nights of argument and accusation before they were at last forced to go for medical help to solve their self-created problem. "Singing in nightclubs back on Earth, marrying a billionaire, living in a sky yacht!"

"Avis," said Dr. Kalmar gently. "You know it's not that easy, don't you? There are lots and lots of pretty girls on Earth and very few billionaires. If you did get a job singing in a nightclub, you know you'd have to do some unpleasant things because there's so much competition for customers.

Things like stripteasing, drinking at the tables and going out with whoever the owner tells you to."

The girl's face grew animated for the first time. "Well, sure! Why do you think I want to go?"

"And you don't love Deneb and your farm?"

"I hate both of them!"

"But you realize that we must have food. Doesn't it make you feel important to grow more food so we can increase our population?"

"No! Why should I care? I want to go to Earth!"

Dr. Kalmar shook his head regretfully. He pushed a button on his desk. It was connected to a gravity generator directly under the girl's chair. Four gravities suddenly pushed her down into it and a hypodermic needle jabbed her swiftly with a hypnotic drug. She slumped. He released the button and the artificial gravity abated, but she remained dazed and relaxed.

"You're not going to hurt her, are you, Doc?" Mr. Emery begged.

"Certainly not. But I suppose you know Social Control's orders."

They nodded, the husband gloomily, the wife with a single sharp jerk of her head.

"You go right ahead and do it," she said. "I'm sick of working my fingers to the bone while she primpes and preens and talks all the time about going to Earth."

"Come, Avis," Dr. Kalmar said in a low, commanding voice.

She stood up, blank-faced, and followed him out to the Ego Alter room. He closed the door, sat her down in the insulated seat next to the control console, put the wired plastic helmet on her and adjusted it to fit her skull snugly.

Running his finger down the treatment sheet of her Social Control file, he set the dials according to its instructions. The psychic areas to be reduced were sex drive, competitiveness and imagination, while the areas of reproductive urge and cooperation were to be intensified. He regulated the individual timers and sent the varying charge through her brain.

There was no reaction, no convulsion, no distortion of features. She sat there as if nothing had happened, but her personality had changed as completely as though she had been retrained from birth.

Miss Dupont came in without knocking. She knew, of course, that any patient in the Ego Alter room would be incapable of being disturbed.

"Reophysical, Dr. Kalmar?" she asked.

"I'm afraid so. Will you prepare her, please?"

The nurse removed the girl's clothes. There was no resistance.

"Such a lovely body," she said. "It's a shame."

He shrugged. "Until we have enough people and farms and in-

dustries, Miss Dupont, we'll just have to get used to altering people to fit the needs of our society. I'm sure you understand that."

"Yes, but it still seems a shame. Bodies like that don't grow on trees."

He gently moved the girl into the Reophysical Chamber. "They grow in this machine, though. As soon as we can afford it, which ought to be only a few hundred years from now, we can make any woman look like this, or even better."

"And don't forget the men," Miss Dupont said as he started the mitogenetic generator. "We could use some Adonises around here."

"We'll have them," he assured her.

"Somebody will. None of us'll live that long."

Working like a sculptor with a cathode in one hand and an anode in the other, Dr. Kalmar began reshaping the girl who stood fixedly in the boxlike chamber. The flesh fled from the cathode and chased after the anode as he broadened the fine nose, thickened the mobile lips, squared the slender jaw and drew out carefully the delicately arched orbital ridges.

"I'll leave the curl in her hair," he said. "Every woman needs at least one feature she can be proud of."

"You're telling me," Miss Dupont replied.

"Synthetic tissue, please."

She drew out a tube with a variable nozzle and started working just ahead of him. A spray of high-velocity cells shot through the girl's smooth skin at the neck, shoulders, breasts, hips and legs, forming shapeless lumps that he guided into cords and muscles. The slim figure quickly broadened, grew brawny and competent-looking, the body of a woman who could breed phenomenally while farming alongside her man.

Dr. Kalmar racked up the instruments and helped Miss Dupont dress the girl in coveralls and sandals. He felt the pride of craftsmanship when he found that the clothing supplied for her by Social Control exactly fitted her. He injected an antitode to the hypnotic and gave her the standard test for emotional response as her expressionless face cleared to placidity.

"Do you know where you are, Avis?"

"Yes. Ego Alter and Rephysical."

"What have we done to you?"

"Changed me to fit my environment."

"Do you resent being changed?"

"No." She paused and looked worried. "Who's taking care of the crops while I'm here?"

"They can wait till you and your parents get back, Avis. Let's show them the change, shall we?"

"All right," she said. "I think they'll be proud of me. This is how they always wanted me to be."

"And you?"

"Oh, I feel much better. As if I don't have to try so hard."

"I'm glad, Avis. Miss Dupont, better have a sedative ready when her father sees her. I think he'll need it."

"And her mother?" asked the nurse practically.

"She'll probably want a drink to celebrate. Give her one."

Dr. Kalmar's prognosis was correct, only it didn't go far enough. His young assistant from Earth had come scooting out of his disquietingly large quarters and was jittering in the office when they entered.

"Is that the pretty girl who was waiting when we came in?" he yelped in outrage. "What have you done to her?"

Dr. Kalmar gave the sedative to him instead of Mr. Emery, who was shocked, but had known in advance what to expect. Miss Dupont prepared another sedative quickly, gave Mrs. Emery a celebration drink and moved the family toward the door.

"She looks fine, Doctor," the mother said happily. "Avis ought to be a big help around the house and farm from now on."

"I'm sure she will," he said.

"But she was so lovely!" wept Mr. Emery, though in a rapidly

becalming voice as the sedative took effect.

The door closed behind them.

"You ought to be reported to the Medical Association back on Earth!" Dr. Hoyt said angrily. "Ruining a girl's looks like that!"

Dr. Kalmar sighed. He had hoped to be able to put off this orientation lecture until the following day, when there wouldn't be so many patients jamming his appointment book.

"All right, let's get it over with. First, I was also trained on Earth and know how Ego Alter and Rephysical are used there: Ego Alter to remove psychic blocks so people can compete better, and Rephysical so they'll be more attractive. Second, we're not under the jurisdiction of Earth's Medical Association. Third, we'd damn well better not be, because our problems and solutions aren't the same at all."

"You'd have been jailed for spoiling that girl's chances of a good marriage!"

"I didn't," Dr. Kalmar said quietly. "I improved them."

"You did nothing of the —" Dr. Hoyt stopped. "Improved? How?"

"I keep telling you this is a frontier world and you keep acting as if you understand, but you don't. Look, a family is an economic liability on Earth; it consumes without producing. That's why girls have so much trouble

finding husbands there. Out here it's different. A family is an asset — if every member in it is willing to work."

"But a pretty girl like that can always get by."

"No Denebian can afford to marry a pretty girl. It's too risky. She can't work as hard as we do and still take care of her looks. And he'd worry about her constantly, which would cut into his efficiency. By having me make her a merely attractive girl in a wholesome, hearty way, Social Control guarantees more than just a marriage for her — it guarantees a contented married life."

"Sweating away on a farm," Dr. Hoyt said.

"Now that her anti-social strivings are gone, she'll realize that Deneb needs farmers instead of nightclub singers. She'll take pride in being a good worker, she'll raise as many children as she'll be capable of bearing, and she'll have a good husband and a prosperous farm. That wouldn't have satisfied her before. It will now. And she's better for it and so is Deneb."

Dr. Hoyt shook his head. "It's all upside down."

"You'll get used to it. Why not take today off and explore Denebia? You need a rest after all those months in space."

"Maybe I will," said Dr. Hoyt vaguely, slightly anesthetized.

"Good." Dr. Kalmar buzzed

for Miss Dupont. "Send in the next patient, please. Oh, and Dr. Hoyt is taking the day off."

But the young assistant was stunned into staying by the huge size of the Social Control file that was carried by the next patient, Mr. Fallon, and his wife.

"I know just what you're thinking, Dr. Kalmar!" cried Mrs. Fallon distractedly, but with a nervously bright smile. "Those awful Fallons again! I don't blame you a bit, but —"

As a matter of fact, that was exactly what Dr. Kalmar was thinking, plus the defeated feeling that they were all he needed to make the day complete.

"Good Lord, what's in all those files?" Dr. Hoyt exclaimed.

Dr. Kalmar could have explained, but he didn't feel up to it.

Mr. Fallon, a wispy, shyly affable, poetic-looking chap, did it for him. "Papers," he said.

"I know that, but why so many?" Dr. Hoyt asked impatiently.

Miss Dupont seemed wryly amused as she watched his consternation.

"I guess you might say it's because I can't make my mind up," confessed Mrs. Fallon with an uneasy giggle. She was a big woman who might have gurgled over a collection of toy dogs on Earth, but here she was a freight checker and her husband was a

statistician in the Department of Supply, though on Earth he might have been anything from a composer to a social worker. "No matter how often we rephysical Harry, I always get tired of his looks in a few months."

"And how often has that been done?" Dr. Hoyt demanded.

"I think it's eleven times. Isn't that right, dear?"

"No, sweet," said Mr. Fallon. "Thirteen."

Dr. Kalmar could have interrupted, but he considered it wiser to let his assistant learn the hard way. Miss Dupont was enjoying it too much to interfere.

"We've made him tall and we've made him short, skinny, fat, bulging with muscle, red hair, black hair, blond hair, gray hair — I don't know, just about everything in the book," said Mrs. Fallon, "and I simply can't seem to find one I'd like for keeps."

"Then why the devil don't you get another husband?"

Mrs. Fallon looked shocked. "Why, he was assigned to me!"

"Dr. Hoyt just came from Earth," Dr. Kalmar cut in at last, before a brawl could start. "He's not familiar with our methods."

"Let's hear the cockeyed reason," Dr. Hoyt said resignedly.

"We keep our population balanced," said Dr. Kalmar. "Too many of either sex creates tension, hostility, loss of efficiency; look at Earth if you want proof. We can't

risk even a little of that, so we use prenatal sex control to keep them exactly equal."

"There's a wife for every man," Mr. Fallon put in genially, "and a husband for every woman. Works out fine."

"With no surplus," Dr. Kalmar added. "There are no floaters to allow the kind of marital moving day you have on Earth, where so many just up and shift over to new mates. We get ours for life. That's where Ego Alter and Re-physical come in."

"You mean people bring in their mates to have them done over?"

"If they're not satisfied and if the mates agree to be changed."

"I don't mind," said Mr. Fallon virtuously. "I figure Mabel will decide what she wants one of these changes, and then we can settle down and be happy with each other."

"But what about you?" asked Dr. Hoyt, bewildered. "Don't you want her changed?"

"Oh, no. I like her fine just as she is."

"You see now how it works?" Dr. Kalmar asked. "We can't have a variety of mates, but we can have all the variety we want in one mate. It comes to the same thing, as far as I can see, and causes much less confusion, especially since we need stable relationships."

Dr. Hoyt was striving heroic-

ally to stay indignant in spite of the sedative. "And do many ask to have their mates changed?"

"I guess we're a sort of record, aren't we?" Mr. Fallon boasted.

"I guess you are," agreed Dr. Kalmar. "And now, Dr. Hoyt, if there aren't any more questions, I'd like to proceed with this couple."

Dr. Hoyt stretched his eyes wide to keep them open. "It's all screwy to me, but it's none of my business. As soon as I finish my internship, I'm heading back to Earth, where things make sense, so I don't have to understand this mishmash you call a planet. Need help?"

"If you'd find out what Mrs. Fallon has in mind this time, it would let me run the patients through a lot faster."

"How would they feel about it?" Dr. Hoyt asked.

"It's all right with me," Mr. Fallon said amiably. "I'm pretty used to this, you know."

"But what are we going to make you look like, Harry?" his wife fretted. "I felt very jealous of other women when you were handsome and I didn't like you just ordinary-looking."

"Why not go through the model book with Dr. Hoyt?" suggested Dr. Kalmar. "There are still some types you haven't tried."

"There *are*?" she asked in gratified astonishment. "Would

you mind very much, Dr. Hoyt?"

"Glad to," he said.

Miss Dupont brought out the model book for him, and he and Mrs. Fallon studied the facial and physical types that were very explicitly illustrated there in three-dimensional full color. Mr. Fallon, contentedly working out math problems on a sheet of paper, left the choice entirely to her.

Meanwhile, Dr. Kalmar and Miss Dupont swiftly took care of a succession of other patients, raising the tolerance level of frustration in a watchmaker, replating the acne-pitted skin of a sensitive youth, restoring a finger lost in a machine-shop accident, and building up good-natured aggression in an ore miner whose productivity had slumped.

Mrs. Fallon still hadn't decided when the last patient had been taken care of. She said unhappily, "I don't know. I simply absolutely don't know. Couldn't you suggest *something*, Dr. Hoyt?"

"Wouldn't be ethical," he told her bluntly. "Not allowed to."

Dr. Kalmar, checking the Social Control papers with Miss Dupont, wondered if he should interfere. It would lower confidence in Dr. Hoyt, which meant that people would insist on Dr. Kalmar's treating them. Then, instead of having an assistant to remove some of the load, he'd have to do the work of two men.

He decided to let the young doctor handle it.

But Dr. Hoyt stood up in exasperation, slammed the book shut, and said, "Mrs. Fallon, if you know what you want, I'll be glad to oblige. But I'm not a telepathy —"

"Is there anything I can do?" Dr. Kalmar interrupted quickly, before his assistant could create any more damage.

"He doesn't have to get huffy," Mrs. Fallon said indignantly. "All I asked for was a suggestion or two."

"Insult my wife, will he?" Mr. Fallon belligerently added.

"It's my fault," Dr. Kalmar said. "Dr. Hoyt just got in today from Earth and he's tired and he naturally doesn't understand all our ways yet —"

"*Yet?*" Dr. Hoyt repeated in disgust. "What makes you think I'll ever —"

"And I shouldn't have burdened him with this problem until he's had a chance to rest up and look around," Dr. Kalmar continued in a slightly louder voice. "Now, let's see if we can't settle this problem before closing time, eh?"

The Fallons subsided, Dr. Hoyt watched with a sarcastic eye, though he kept silent as Dr. Kalmar and Miss Dupont, working as a shrewd team, gave them the suggestion they had been looking

for. It was all done very smoothly, so smoothly that Dr. Kalmar felt professional pride because even his stiff-necked assistant was unable to detect the fact that it *was* a suggestion.

Dr. Kalmar got Mrs. Fallon to reminisce about the alterations her husband had undergone, and Miss Dupont promptly agreed with her when she explained why each had been unsatisfactory. It took some time, but he eventually brought her back to what Mr. Fallon had looked like when she'd first married him.

"Now, isn't that the strangest thing?" she said, puzzled. "I can't remember. Can you, dear?"

"It's a little mixed up," Mr. Fallon admitted. "Let's see, I know I was taller and I think I had a long, thin face —"

"Oh, we don't have to guess," Dr. Kalmar said. "Nurse, we have the information on file, don't we?"

"Yes, Doctor," she said, and instantly produced a photograph. They evidently thought it was merely filing efficiency; they hadn't noticed her searching for the picture quietly while Dr. Kalmar had been leading them on. He had, in fact, delayed asking her until she'd nodded to indicate that she had found it.

Mr. Fallon frowned as if he'd recognized the face but couldn't remember the name. His wife gave a little shriek of admiration.

"Why, Harry, you looked perfectly wonderful!"

"Those deep dimples made shaving pretty hard," he recalled.

"But they're *darling*! Why did you ever let me change you?"

"Because I wanted you to be happy, sweet."

It was as simple as that — a bit of practical psychology based on knowledge of the patients. Dr. Kalmar wished wistfully that old Dr. Lowell had been there to observe. He would have approved, which might have made up for Dr. Hoyt's unpleasant expression.

"I hope this is the one you want," Dr. Kalmar said as he took them to the front door after the rephysical.

"Goodness, I hope so!" Mrs. Fallon exclaimed. She looked fondly at her husband, and this time had to look up to see his face. "I'm almost *positive* this is what I want Harry to be."

"Well, if it isn't, sweet," Mr. Fallon said, "we'll try something else. I don't mind as long as it makes you happy."

They closed the door behind them, leaving the hospital empty of all but the small staff.

"They're crazy!" Dr. Hoyt exploded. "He's not the one we should be changing. That idiotic female needs a good Ego Alter!"

"He hasn't asked for it," Dr. Kalmar pointed out patiently.

"Then he ought to!"

"That's his decision, isn't it?"

There's such a thing as ethics, you know."

"I've never seen anything more insane than the way you work," snapped Dr. Hoyt. "I can't wait to finish my stretch here and go home."

He stamped out, weaving slightly because of the sedative.

"Well, what do you think of our assistant?" asked Dr. Kalmar.

"He's cute," Miss Dupont said irrationally.

Dr. Kalmar glowered at her. He'd forgotten that she was due to have a mate assigned to her this year.

Routine at the hospital was anything but routine. Dr. Hoyt barely kept from yelping each time someone was treated, and his help was given so unwillingly that Dr. Kalmar, sweating under a double load and with Dr. Hoyt to argue with at the same time, was all for putting him on the ship and asking Earth for another intern. But Miss Dupont talked him out of it.

For no discernible reason other than loneliness, Dr. Hoyt was taking her out. She was pleased, even though he crabbed constantly about the shabby-looking clothes she wore, which were typical of Deneb, and the way they fitted her.

Either the two of them didn't talk shop, or she had no influence with him — his criticism and im-

patience grew sharper each week.

It bothered Dr. Kalmar more than he thought it should, and much more than Mrs. Kalmar wanted it to. She was a pleasant little woman who liked things as they were, which was why Dr. Kalmar had hesitated all this while to ask her to undergo a slight rephysical; he would have preferred her a little taller, more filled out, her slight wrinkles deleted and, while he was thinking about it, he wished she'd let him give her space-black hair instead of her indeterminately blondish mop. But he'd rather have her as she was than peevish, so he had never mentioned it.

"Don't let the boy upset you, she said. "It's only that he's so young and inexperienced. You can't expect him to adjust quickly to a new environment and a whole new medical orientation."

"But that's just what annoys me! Why, I used to hang onto every word of Dr. Lowell's when I came here! I never thought I knew better than he did."

"Well, dear, you're you and Dr. Lowell is Dr. Lowell and Dr. Hoyt is Dr. Hoyt."

He tried to think of an answer and couldn't. "I suppose so."

"Maybe you'd feel better if you spoke to Dr. Lowell about it."

"What could he do? This is really an internal problem that I should work out with Dr. Hoyt. I can't involve Dr. Lowell in it."

But it became intolerable when there was a young girl who wanted to be a boy and Dr. Kalmar and Dr. Hoyt got into the worst battle yet. Naturally, she had to be given an Ego Alter to make her happy about being a girl, whereas Dr. Hoyt argued that she should be allowed to be a boy if that was what she wanted. Dr. Kalmar explained angrily once more than the sexes were exactly balanced and Dr. Hoyt quoted the rule of personal choice. It was applicable on Earth, but not on Deneb, Dr. Kalmar retorted, to which Dr. Hoyt snorted something about playing God.

Dr. Kalmar confessed harshly to his wife that she was right. He had to bring old Dr. Lowell into the situation; it was out of Dr. Kalmar's control and was keeping the hospital in a turmoil. It was time for Dr. Lowell to inspect the hospital, the job he had taken in place of actual retirement. Dr. Kalmar needed help from Miss Dupont to bring the problem out into the open. But she became unexpectedly obstinate.

"I won't hurt Leo's career," she explained flatly.

Dr. Kalmar gave her a vacant look. "Leo?"

She blushed. "Dr. Hoyt. He's honestly trying to understand, but he finds it so different from Earth. Practically everything we do here is in reverse."

"But so is our environment, Miss Dupont. Earth is overcrowded and Deneb is underpopulated, so of course our methods would be the opposite of Earth's. He has to be made to see that we must solve our problems our own way."

She studied his face suspiciously. "That's all you want?"

"Certainly. Damn it, do you think I want him fired and sent back to Earth before his internship's up? I know it would hurt his record. Besides, I need an assistant — but not one I have to bicker with every time I make a move."

"Well, in that case —"

"Good girl. All you have to do is help me hold off the cases he'd argue about until Dr. Lowell gets here." He stared down glumly at his hands, which were gripping each other tightly. "God knows I'm no diplomat. Dr. Lowell is. He convinced me easily enough when I came here. Maybe he can do the same with Dr. Hoyt."

"Oh, I hope he can," Miss Dupont said earnestly. "I want so much to have you and Leo work together in harmony."

He glanced up, curious. "Why?"

"Because I'm in love with him."

He found himself nodding bitterly. Having Dr. Hoyt go back to Earth wouldn't be a fraction as bad as Miss Dupont leaving with

him. So now there was something else to worry about.

Dr. Lowell came bouncing out of the jetcab a few days later. "The hospital better be spotless!" he called out jovially, paying off the hackie. "I'm in a mean mood. Liable to suspend everybody."

There was a strange lift to Dr. Kalmar's spirits as the old man entered the office. He wished without hope that he could inspire the same sort of reverence and respect. Impossible, of course. Dr. Lowell was great; he himself was nothing more than competent.

Dr. Kalmar introduced his young assistant to the old man.

"Young and strong," Dr. Lowell approved. "That's what we need on Deneb. Skill is important, but health and youth even more so."

"For those who stay," said Dr. Hoyt frostily. "I'm not."

Dr. Kalmar felt himself quiver with rage. The wet-nosed pup couldn't talk to Dr. Lowell like that!

But Dr. Lowell was saying cheerily, "You seem to have made up your mind to go back. No matter. Some decisions are like eggshells — made only to be broken. I hope that's what you'll do with yours."

"Not a chance," Dr. Hoyt said. He didn't take the arrogant expression off his face even when

Miss Dupont looked at him pleadingly.

"Then I say let's signal the next ship —" Dr. Kalmar began.

Dr. Lowell cut in quickly, "You two have patients to attend to, I see. Don't worry about me. I know my way around this poor little wretch of a building. Not much like Earth hospitals, is it?" He headed for the medical supply room, adding just before he went in, "A lot can be said for small installations. The personal touch, you know."

Dr. Kalmar enviously realized how deftly the old man had put the youngster in his place, whereas he would have stood there and slugged it out verbally. Lord, if he could only acquire that awesome wisdom!

"Well, back to work," he said, trying to imitate the cheeriness at least.

"Sure, let's ruin some more lives," Dr. Hoyt almost snarled.

"Leo, *please!*" whispered Miss Dupont imploringly.

Five minutes later the two doctors were furiously arguing over a very old man who had been sent by Social Control to have his eyesight strengthened.

"You have no right to let anybody dodger around like this!" Dr. Hoyt yelled. "What in hell is Rephysical for if not for such cases?"

"You probably think we ought to make him look like 25 again,"

Dr. Kalmar yelled back. "If that's all you've learned working here —"

"Now, now," said Dr. Lowell soothingly. He'd come in unnoticed by either of the men. "Dr. Hoyt is right, of course. We *would* like to make old people young and some day we'll be able to afford it. But not for some time to come."

"Why not?" Dr. Hoyt demanded in a lower tone, visibly flattered by Dr. Lowell's seemingly taking his side.

"Rephysical can't actually make anyone young. It can only give the outward appearance of youth and replace obviously diseased parts. But an old body is an old organism; it has to break down eventually. If we give it more vigor than it can endure, it breaks down too soon, much sooner than if we let it age normally. That represents economic loss as well as a humanitarian one."

"I don't follow you," Dr. Hoyt said bewilderedly.

"Well, our patient used to be a machinist. A good one. Now he's only able to be an oiler. A good one, too, when you improve his eyesight. He can go on doing that for years, performing a useful function. But he'd wear himself out in no time as a machinist again if you de-aged him."

"Is that supposed to make sense?"

"It does," said Dr. Lowell, "for Deneb."

Dr. Hoyt wanted to continue the discussion, but Dr. Lowell was already on his way to inspect another part of the hospital. Grumbling, the young man helped chart the optical nerves that had to be replaced and measure the new curve of the retinas ordered by Social Control.

But he fought just as strenuously over other cases, especially a retired freight-jet pilot who had to have his reflexes slowed down so he could become a contented meteorologist. Whenever there was a loud disagreement of this sort, Dr. Lowell was there to mediate calmly.

At the end of the day, Dr. Kalmar was emotionally exhausted. He said as he and Dr. Lowell were washing up, "The kid's hopeless. I thought you could straighten him out — God knows I couldn't — but he'll never see why we have to work the way we do."

"What do you suggest?" Dr. Lowell asked through a towel.

"Send him back to Earth. Get an intern who's more malleable."

Dr. Lowell tossed the towel into the sterilizer. "Can't be done. We're expanding so fast all over the Galaxy that Earth can't train and ship out enough doctors for the new colonies. If we sent him back, I don't know when we'd get another."

Dr. Kalmar swallowed. "You mean it's him or nobody?"

"Afraid so."

"But he'll never fit in on Deneb!"

"You did," Dr. Lowell said.

Dr. Kalmar tried to smile modestly. "I realized immediately how little I knew and how much more experience you had. I was willing to learn. Why, I used to listen to you and watch you work and try to see your reasons for doing things —"

"You think so?" asked Dr. Lowell.

Dr. Kalmar glanced at him in astonishment. "You know I did. I still do, for that matter."

"When you landed on Deneb," said Dr. Lowell, "you were the most stubborn, opinionated young ass I'd ever met."

Dr. Kalmar's smile became an appreciative grin. "Damn, I wish I had that light touch of yours!"

"You were so dogmatic and argumentative that Dr. Hoyt is a suggestible schoolboy in comparison."

"Well, you don't have to go that far," Dr. Kalmar said. "I get what you're driving at — every intern needs orientation and I should be more patient and understanding."

"Then you don't follow me at all," stated Dr. Lowell. "Invite Dr. Hoyt, Miss Dupont and me to your house for dinner tonight and maybe you'll get a better idea of what I mean."

"Anything for a free meal, eh?"

"And to keep a doctor here on Deneb that we'd lose otherwise."

"Implying that I can't do it."

"Isn't that the decision you'd come to?"

"Yes, I guess it is," Dr. Kalmar confessed. "All right, how about dinner at my house tonight? I'll round up the other two and call Harriet so she'll expect us."

"Delighted to come," said Dr. Lowell. "Nice of you to ask me."

Miss Dupont was elated at the invitation and Dr. Hoyt said he had nothing else to do anyway. On the videophone Mrs. Kalmar was dismayed for a moment, until Dr. Lowell told her to put through an emergency order to Central Commissary and he'd verify it.

That was when Dr. Kalmar realized how serious the old man was. On a raw planet where crises were everyday routine, a situation had to be catastrophic before it could be called an emergency.

Dinner on Deneb was the same as anywhere else in the Galaxy. To free women for other work, food was delivered weekly in cooked form. A special messenger from Central Commissary had brought the emergency rations and Mrs. Kalmar had simply punctured the self-heat cartridges and put the servings in front of each guest; the containers were

disposable plates and came with single-use plastic utensils. No garbage, no preparation, no cleaning up afterward, except to toss them all into the converter furnace. Dr. Hoyt was still not accustomed to wholly grown foods; he'd been raised on synthetics, of course, which were the staples on Earth.

"Well, that was good," said Dr. Lowell, getting up from the table with his round little belly comfortably expanded. "Now, let's have a few drinks before we start a professional bull session. Where do you keep your liquor? I'd like to mix my special so Dr. Hoyt can see we colonials are not so provincial."

"Good Lord, I haven't had your special for years!" exclaimed Dr. Kalmar. "Since about the time I came to Deneb, in fact."

"That's why it's a special. Reserved for state occasions, such as arrivals of colleagues from our dear old home planet."

"Oh, you don't have to go to all that bother," said Dr. Hoyt. "You'd have to make it twice — once now and once when I leave."

"That won't be for quite a while, will it?" Miss Dupont asked anxiously.

"As soon as I finish my internship. No more alien worlds for me. I like Earth."

Mrs. Kalmar got him to talk about it, which was much easier than getting him to stop, while

Dr. Kalmar showed the old man where the liquor stock and fixings were kept. Watching him mix the ingredients with a chemist's care, Dr. Kalmar felt a glow of nostalgia. He recalled the celebration at Dr. Lowell's house, several months after he had come from Earth, when he'd enjoyed himself so much that he'd passed out. It was one of the pleasanter memories of his start on Deneb.

"Can't mix them all in a single batch," Dr. Lowell explained, bringing the drinks over one at a time as he finished preparing them. "Mrs. Kalmar . . . Miss Dupont . . . our gracious host, Dr. Kalmar . . . and now Dr. Hoyt and myself." He lifted his glass at Dr. Hoyt. "Welcome to our latest associate — product, like ourselves, of the great medical schools of Earth. It's a forlorn hope, but may he learn as much from us about our peculiar methods as we learn from him about the latest terrestrial advances."

Dr. Hoyt, smiling as if he didn't think it possible, stood up when they'd downed their toast to him. "To Earth," he said. "May I get back in record time." He gulped it, said, "Delicious — for a colonial drink," and froze with his smile as fixed as if it had been painted on.

"Leo!" Miss Dupont cried, and shook him, but he stayed frozen.

"The man's allergic to alco-

hol!" said Dr. Kalmar, astonished.

"Do something!" Mrs. Kalmar begged. "Don't let him stand there like that! He — he looks like a petrified man!"

"Don't get panicky," said Dr. Lowell in a quiet, confident voice. "That's when you passed out, Dr. Kalmar. Right after your first taste of my special."

"But we haven't," Dr. Kalmar objected.

"Naturally. Your drinks weren't drugged."

"Drugged?" shrieked Miss Dupont. "You doped him?"

"That's rather obvious, isn't it?"

"But — what for?" Dr. Kalmar stammered.

"Same reason I slipped you a mickey not long after you got here. We can't take any chances that he'll ship back to Earth. You see?"

"I don't," raged Miss Dupont. "I think it's a cheap, dirty, foul trick and it won't work, either. You can't *keep* him drugged."

"I don't like you talking to Dr. Lowell like that," said Dr. Kalmar indignantly.

"You should be the last one to object," Mrs. Kalmar pointed out. "He said he drugged you, too."

"I know," Dr. Kalmar said blankly. "I don't understand —"

"You will," promised Dr. Lowell. "Just come along and don't interfere. Better give him the

order; it'll keep things straighter."

Mrs. Kalmar was grimly disapproving and Miss Dupont was close to hysteria. Only Dr. Kalmar retained his awed respect for Dr. Lowell. If the old man said it was all right, it was, even if he couldn't see the reason.

"Go ahead," urged Dr. Lowell.

"Dr. Hoyt!"

"Yes, Dr. Kalmar?"

"You will come with us!"

"Yes, Dr. Kalmar."

Dr. Lowell took them back to the hospital.

"Now what?" asked Dr. Kalmar.

"You actually don't know?" Miss Dupont demanded. "He wants to put Leo through the Ego Alter."

"That's absurd," Dr. Kalmar said angrily, "and an outright slander. Dr. Lowell wouldn't consider such a thing — the boy didn't ask for it and it wasn't authorized by Social Control."

Dr. Lowell smiled genially and opened the door to the Ego Alter room. "I hate to disillusion you, Dr. Kalmar. That's exactly what I have in mind — the same thing I did to you."

"That's absurd," Dr. Kalmar repeated, but with less conviction and more confusion than before.

"It worked. Tell him to sit down."

Dr. Kalmar did, and automatically fitted the wired plastic helmet to Dr. Hoyt's head.

"You can't!" cried Miss Dupont as he reached for the dials on the control console. "It's not fair!"

"Let's not get involved in a discussion on ethics," Dr. Lowell said. "Deneb can't afford to lose him; we need every doctor we have. If he goes back to Earth it may be years before we get a replacement."

"But you can't do it without his consent!"

"There's time for that later," the old man grinned. "Keep his eyes on you, Dr. Kalmar, while you build up his father image. Cut down on hostility, aggression and power drive. Boost social responsibility and adventurousness. But make sure he's looking at you constantly."

"I won't allow it," said Mrs. Kalmar flatly. "You won't make my husband violate his oath."

"I did it to him, didn't I?" Dr. Lowell replied jovially. "It got you a husband."

Miss Dupont grabbed at Dr. Kalmar's hand, but he had already turned on the current.

"Anything else?" he asked.

"Well, he has to get married, of course," Dr. Lowell said. "Let him look at Miss Dupont — she's scheduled for this year, isn't she? — while you give him a shot of mating urge. Now, wipe out the memory of this incident and put him on a joy jag. We can validate that by liquoring him up after-

ward. When you're finished, bring him to."

Dr. Hoyt came out of it almost with a whoop. He lurched out of the insulated seat, stared at Miss Dupont for a moment with eyes that almost glittered, and seized and kissed her.

"My goodness!" she gasped.

"Now, what were you saying about ethics?" Dr. Lowell asked.

There was no answer. Both Miss Dupont and Mrs. Kalmar had frozen.

"You drugged them, too?" Dr. Kalmar weakly wanted to know.

"A bit slower-acting," admitted the old man. "All you have to do with them is wipe out the last half hour. Don't want any witnesses to an unethical act, you know. Oh, and put them on a jag also."

Dr. Kalmar followed instructions.

Finished, they left the three uproariously drunk in the waiting room and went to wash up. Dr. Kalmar went along bewilderedly. The old man was as unconcerned as if he did this sort of thing daily.

"I was as arrogant and belligerent as this squirt was!"

"Worse," Dr. Lowell said. "He was willing to finish out his internship. You weren't. Still worried about the ethics?"

"Yes. Naturally."

"All right, apply some logic, then. Are you happier on Deneb than you'd have been on Earth?"

"Well, certainly. I'd have been lucky to get a job doctoring in a summer camp. I wouldn't trade a roomy planet like this for the jammed cubicles of Earth. And I like our methods better than terrestrial dogma. But those are my preferences. I can't inflict them on anybody else."

"The hell they were your preferences. You bickered more about our methods and longed more loudly for the tenements of Earth than this lad ever did. All it took was a slight Ego Alter and you have a happier life than you would have had. Right?"

Dr. Kalmar felt his tension ease. If the old man said it was right, it was. He became momentarily resentful when he realized that that reaction had been installed by Dr. Lowell, but then he smiled. It really was right. A bit arbitrary, perhaps, but for the good of Dr. Hoyt and Deneb in the long run, just as it had been for himself.

"Look," he said, drying his arms. "I've been wanting my wife to go through a slight rephysical."

"Why don't you ask her?"

"The fact is that I'm afraid she'll think I'm dissatisfied and I don't want her to get resentful."

"Maybe she'd like you to do some changing, too."

"What for? I'm all right."

"She probably feels the same way about herself."

"But all I want are a few changes in her. She's as high as a space pilot now. It would be a cinch to—"

Dr. Lowell flung down the towel and gave him an outraged glare. "There's such a thing as professional ethics, Dr. Kalmar!"

"But you—"

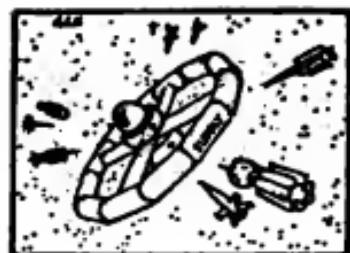
"That's different. It was a social decision, not a selfish one. If you ask her and she agrees, that's up to her. But you can't take advantage of her in an egocentric, arbitrary way. You just try it and I'll have you sent back to Earth."

Dr. Kalmar felt his knees grow weak in alarm. "No, no. It's not that important. Just an insignificant kind of wish."

And it was, he discovered when they went out to the waiting room. Unused to jags, Mrs. Kalmar was more affectionate than she'd been since they were first married; he'd have to remember to go on them periodically with her. Miss Dupont, unwilling to budge out of Dr. Hoyt's tight arms, had glassily joyous eyes. Dr. Hoyt didn't let her go until he caught sight of Dr. Kalmar.

"Greatest doctor I ever met," he said enthusiastically. "Won'ful planet, Deneb. Just wanna marry Miss Dupont, stay here and learn at your feet. Okay?"

Dr. Kalmar's glance at the old man was no less worshipful. "It couldn't be okayer," he said.



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